

Oswego. 17. August. 1836

Dear Gray. Yours of the 9th inst was received Monday morning last and I take the first opportunity to reply to it. I have been thinking much of your South Sea & Pacific scientific Expedition since your letter came to hand and have made up my mind pretty clearly

I should go I believe if I were in your situation if there is nothing in your present situation & circumstances different from what I now know or imagine -

The advantages to be derived from taking a principal part (I would take no other) in such an Expedition are considerable. You will reap a harvest of Knowledge & such as you desire unless my idea of the matter is incorrect. You will obtain an enviable celebrity & reputation in the scientific world. For an ordinary man going to ends of the Earth upon such an

emand. under the patronage of the government
- as one of the principals. though he should
perform his duty with only ordinary ability
would ever after for this alone maintain a
high rank in the scientific world
You can if you please with Gods blessing
do much more than that. It will be
to you but a step in the ladder

The compensation is not trifling either
\$1500. and your rations - You will if
you three years lay up about \$4000. I
should think. For I don't understand
that you will be under the necessity of
expending anything for apparatus &c
& you cannot if you would lay out much
for the necessaries or luxuries of life. If
you should return so as to spend any
time in Europe you would then have an
opportunity of spending money as you
have long wished to spend it - But I
will not say more now than merely that
my presents impressions are in favor of you

taking it or even seeking it.

I am prosperous in all my worldly affairs all things considered. Real Estate is dull & heavy but I have not more on my hands than I can carry: for that reason I am well off & much better than my neighbors: some of them. My health is tolerable good but much worse it was better. My internal disease is no better than it was last summer that I know of. My stomach is out of order often. head-ache occasionally do not sleep quietly nights at no time

Most of the time however I am tolerable condition & spirits.

I have been very - very busy all summer, cares & anxieties have increased so much by far. My business affairs have been pressing all summer. Getting better now. - I should be very glad if you could come out here if only for a day before you return to the city. Do come if possible. - At any rate write me soon & before you go to N. Y. again.

Yours Ever

Leander Babcock

10

Dr. A. Gray
Saugus
Freida Co.



would require except in one respect i.e. beauty
But pray I love, hang the word & sound it from my
body but soon I know. Her right well sheently better
than I ever thought I should any girl

I like Elyptus much. He presents those great & all
important subjects to the mind in such a manner
that it is impossible to misunderstand and hard to dispute
This is the only book of this nature I ever read except
a little of Paley. Studied in school very ~~deep~~ - strange as
it may seem. I never could resolve to take up a
book of the kind but believe me when I say that I
read this book with much interest and understand-
ing too. I still read in it & will continue to do so
until I thoroughly comprehend the whole
There are some faults or omissions in teaching &
but I will succeed in his plan but I cannot now
go into that as my time is most out - I should
have been very happy to have enjoyed the trial I have
given you on the Boat.

Why did you not write me more particularly
about the 'unwelcome news' you expected from
your - Let me know & may you everything that
happens which has any effect upon your prospects
I am boat making some changes in my business
relations. I expect Mr Wm. Green from N.Y. will become
my partner in the course of a few months. I will

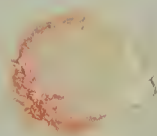
be a good thing for me! but of this next time - See Frank
if possible tell him I have gone I shall be home
again on Tuesday next - I may come down for a day
or so while Frank is there if I know. I wrote to
Frank that I should go to Buffalo Monday next
My regards to all - Yours ever Barbrook

10

Dr. Asa Gray

Providence

Mass.



St. Johns College, Cambridge
17 Nov. 1849

Sir,
I venture to address you upon a botanical
subject of some interest - which I trust will be
considered as a sufficient excuse for intruding
upon you.

You will probably have seen in the "Annals
of Natural History" for 1848 (Ser. 2. Vol. 1, p. 81. tab. 8)
a paper upon Anacharis Alniastrea in which there
is some discussion upon the subject of Nuttall's
Udora canadensis, both as to its identity with
Richards Edodea canadensis and its claims to be
considered as a distinct genus from Anacharis.

Since that paper was published I have received
your "Botany of the Northern U. States" in which you
to a considerable extent adopt Nuttall's description
of the male flower of Udora. As I shall shortly have
to describe our plant in the "Supplement to English Botany"

I desire to obtain from you an opinion as to the identity of our Azacharis Alsinastum with any of the N. American plants; and the declaration from you that you have seen the detached male flowers and also anthers in the female or hermaphrodite flowers. No male flowers nor anthers have been found in England upon Azacharis Alsinastum. I also desire to know what is your opinion about the claims of Nuttall's and Richards' names

I enclose a bit of my Azacharis and venture to express a hope that you will do me the favour of returning me a bit of your plant.

begging that you will excuse this intrusion.
I have the honour to be
very obediently yours

Charles C. Sabington.

D. A. Gray

Fisher Professor

Harvard University, Mass.

Cambridge
5 Trumpington Road
16 Oct. 1868

My dear Dr

We shall be right glad
to receive you and Mr. Gray
into our house any time between
the 1st and 10 of November
if you will do us the kindness
to come. You really must not
go to an inn as we have
a room for you. If you
tell me as soon as you
can on what day you

will come and how long you
can remain we will ask
the Master of Trinity to
advise. As he is much
engaged we must give him
as long a notice as we can if
we can't get them to come.
My wife desires her best
complements to Mr. Gray
and anxiously desires to make
her acquaintance.

Yours very truly
Charles C. Wabington.

Bethus y Coed
Sept. 30. 1869

Dear Prof. Gray

I hope to be again at Cambridge
some time next week and shall
then I believe be able to give
you all the information which
you want about the books of
your Society.

If you and Mrs Gray can
come for a few days to Cambridge
before you leave England we
shall be very glad to receive

you at our house 5 Bromsington
Road. My wife and I hope that you
will try us to arrange your plans.

Yours mother

Charles C. Habington -

5 Brookside
Cambridge
Dec. 13. 1880

Dear Dr. Gray,

Your letter only reached me
~~yesterday~~ this evening, altho' dated
the 11th.

I shall have much pleasure
in giving you access to any
of our plants, and hope that you
will find something of interest.
You will not find us in such
good order as New - for we are
very much under loaded.

I can let you have for exami-
nation any specimens that

you may desire to take away
for a time, but fear that they
will not be very many.

M^{rs} Babington and I ~~hope~~
that you and M^{rs} Gray
will come and stay with us
so as to see the plants and the
place well. We have ~~room~~
a room at your disposal
until Saturday night - &
so hope that you will find a
tolerably lively day in
this week to come to us.

Of course there is very little
time in our garden at this
time of year - but Lynch
will be glad to show you all
that he has, and to form
an acquaintance with you.

Please to send me a line to
say when we may expect
you and believe me to be
very truly yrs

Charles C. Babington -

The rail from New will take you
to Broad Street and the Gt Eastern Station
is then next door. There are admirable
trains on it.

5 Broadside
Cambridge
16 Dec. 1880

Dear Dr. Gray,

I think that there is no one
for you to come here to see the
working of our ~~labor~~ laboratories, as
nearly if not quite all workers
at a stand, and will be so for
some weeks to come. Regular
and full work will not begin again
until the end of next month; as old
custom always leaves January free
for our great Mathematical
examination — and Degree Day
will this year be Jan. 29.

The men are all away, except

the going to that examination,
and Tutors and Lecturers
take advantage of their absence
to take a holiday.

I do not know how long you
remain in England, but you
see that January is a bad
month for this place. For this
last fortnight of 1880, we
shall also be fully engaged
with making up, and having
audited, the accounts of several
matters in which Mr. Webster
or I are much interested.

After the 1st week of Jan.
I believe that we shall be
quite free and may probably
re-see you and Mr. Gray.

I am very much pleased
with your new book. I hope that
the Flora of N. America is
advancing.

With our best Compliments
to Mr. Gray, believe me to be
very truly yrs

Charles C. Abington
Your letter arrived this morning.

5 Brookline
Cambridge
7 Jan. 1881

S. D. Young

I have sent by G. S. M.
Wray to the Herbarium House
a parcel containing Sundew
After bifrons

- usphyllus
- hortellus
- spathulatus
- Lewis (3 spec.)
- mutabilis (2 spec.)

Diplopappus longus

Which I hope that you
will bring back with you
when you come. You can

Then look over all the other
specimens in his book, &
they are rather many.

Yours

Charles C. Dabney

Cambridge

July 18. 1885

C. C. Babington

Dear Dr. Gray

Your note addressed to me has
been sent me to me.

I have the Bot. Register before
me and have had a careful search
made in Lindley's Herb. but no
specimen of Vrijeron squarrosus
is to be found. There is a notice of the
plant as in cultivation between
1840 and 1855 in "The 2nd Supplement"
to Loudon's "Encyclopedia of Plants" p. 1442
The description there is a translation of
that in Bot. Register. I fear that I can do
no more for you.

I have been much pleased

recently to receive the new part
(vol. 1. N. 2, of the *Synoptical*
Flora.

Believe me to be
very truly yours

Charles C. Wright.

Dones knows nothing of the Herbarium.
His work ~~lies~~ lies in a different
direction - neither is Lea Professor.

now, if it would not be a very
great liberty on my part to ask
if you c^d take them to him: or
at any rate to tell me how I
might send them over.

Pray remember to Mr. J. Hooker.
I received today the marriage
cards of Dr. & Mrs. Hooker.

I believe me

, my dear Sir,

Yours most faithfully
Churchill Babington

S^t. John's Coll.
Cambridge
July 6. 1851.

My dear Sir,

I am extremely obliged by
your kindness in sending me by
my cousin a copy of Tuckermans
North American Lichens: it is a
book which I have for some time
studied with attention; but I am
not the less pleased to receive a copy
from so distinguished a promoter
of the work as yourself.

Almost as soon as you
had left my rooms I felt vexed

at having let you go, although I
was pretty sure you intended
your call for my cousin & in
vain afterwards tried to find you:
and I also hoped to have seen you
at the train when Prof. Harvey
called on me a few days ago.

I thought it possible that you might
kindly give me some aid in entering
into a correspondence with Dr.
Tuckermann; I have a few
Lichens from N. America in which
I know he will be interested &
also a small set of Pyrenean
lichens which are ready for him.

getting English or other plants,
so far as I may be able.

My occupations in my parish, &
in classical & historical studies
prevent me from carrying out
botany to any very great perfection,
but I have always been very partial
to it, & one family (the Richeys)
I have now formed a very considerable
collection: besides having got together
a huge pile of Phanerogamous plants
from Germany, Italy, Switzerland

&c. Pray believe me

any dear Sir

Yours very truly

Churchill Babington

P.S. You must have seen Cambridge but superficially,
cannot you visit it again & stay in St. John's with me?

P.S. Your Anacharis
has escaped out of the
botanic garden into the
Cam., & is the plague of
my life, when I am

My dear Sir,

St. John's Coll.

Cambridge.

July 28. 1851.

fishing.

I am truly obliged for your
kind offer respecting the N. American
Ferns, w^{ch} I most gladly embrace.
My collection contains very few N.
American species, about 8 perhaps,
principally of the genera *Lycopodium*
& *Botrychium*. I do not venture
to ask for the rarest species, w^{ch} will be
better bestowed on better botanists, but
all such species as you can procure
without any difficulty or inconvenience

will be greatly valued by me; not
excluding your very commonest species.
I am always very glad to have the
same plant from remote countries,
partly for the sake of perceiving its
geographical distribution & partly
to see the effect of climate &c.

There are some lichens in my
collection from almost all parts
between Kotzebue's Sound & Cape Horn.

Some time ago I had hoped to have
formed a regular correspondence with
an American botanist, M^r. Le Roy
of N. York: he sent over about 50
phanerogamous plants & ferns to
my cousin, who handed them

over to me, & transferred the
connection wh. he had with this
gentleman at the same time:
to which M^r. Le Roy seemed to agree.
Accordingly that being over
a very considerable number of
English flowering plants 3 or 4
hundred perhaps, containing
many capital species: but I have
heard no more of him: perhaps
he is dead. This was in 1844, if
I remember.

I hope it is unnecessary to
add that it will always give
me great pleasure to do any
thing for you in the way of

C. D. Bucke

Washington

Dear Doctor Gray

May 20. 1864

I send the notice of Gen. Follen more in conformity with the description which you furnished & its extent than I had at first planned. Dispose of it as you please if too long or too short. I wanted to notice the General's papers but found that this would carry me quite beyond the limits of two 800. pages. My clerk thinks that this may be compressed into two pages & this is the last day when I can be sure that it will reach you in Boston on the 24th.

Yours Truly A. D. Bucke.

Dr. Asa Gray

Pres^t. Amer. Acad. Arts & Sciences
Boston

gladly make good.

Again apologizing for this
liberty

I am very respectfully

Wm. Backhouse

P.S. Perhaps I may say that I
am well known to Prof. Oliver
of Kew, & to some extent to
Dr. Hooker.

For R 11/4 mo 1870

Prof. Gray

Pray pardon the liberty
I am taking in venturing to address
a person to whom I am entirely
unknown. For several years
past I have attempted to
obtain seeds or ^{living} plants of
2 species of *Silene* & 2 of *Lithos-
spermum* which are natives of
the United States, & which I
feel certain, by the descriptions
given of them in the "Manual",
must be very gay plants, well
worthy of cultivation. I have
failed in every instance, in
fact have never yet found
any one who knew that there
were such plants in existence!
One party tells me that he
knows nothing of them, & can

do nothing, but that if I will
"write to so & so, no doubt he
will", & so forth; but it is
all unavailing.

Consequently, as a last resource
— short of sending a person
to America to seek them! —
I venture to ask whether
from your Botanic Gardens
I could be supplied with
seeds, or two or three good
healthy roots of.

Silene regia (Linn.)

Silene rotundifolia (Luttt.)

Lithospermum hirtellum (Lchm.)

Lithosp^m. longiflorum (Spreng.)

I have a very rich living col-
lection of hardy perennials, &
especially of alpine plants, —
perhaps scarcely equalled in

this country; I should be most
happy to send several which
I feel certain would be both
new to horticulturists in Amer-
ica, & regarded as plants of
great beauty. Or, if the ad-
dress of any one residing in
the district where any of these
plants are found (Who knows
them) could be sent to me, I
should regard it as a great
favour. I feel satisfied that
if I had two or three establish-
ed plants of each of these, I
could soon obtain seed so as
to increase them. Lithosp^m. ca-
nescens & Silene virginica I
already possess, though in
limited quantity. ^{I should like more.} The former
will, I hope, flower this season.
Any expense I will most

York 22/11 mo. 1870

Dear Dr Gray

After a protracted absence from home, I hasten to acknowledge thy kindness in sending seeds of Lithospermum longiflorum & Silene rotundifolia, & plants of Lewisia rediviva. All these I value very much & sincerely thank thee for the same. Already some of the seeds of the Lithospermum have vegetated, & 4 or 5 of the plants of Lewisia are growing well.

As regards obtaining roots of the Lithospermum & Silenes, & especially of Silene regia, I would say "By all means if possible, even should it cost 5 times £2" to obtain them. A good supply of the roots of the Silene regia alone would be worth this. The collector must however exercise a care not to take too freely!

for thought I saw an enthusiastic
"Collector" in a horticultural sense,
I saw enough of a Botanist too
most jealously to guard from
any dangerous injury the locality
of a rare or interesting plant!
Seeds or roots of *Delphinium*
tricornis we should also be
very glad to receive.

I learn from my Manager that,
in accordance with my desire,
a collection of alpine & herba-
ceous plants was forwarded ^{to the address *} by
Cunard steamer (direct to Boston
as requested) about the 2nd of
last month. This comprised
nearly all of the plants asked
for, & I trust they will ere this
have been rec^d in good condition.
If not, I will send another lot
in a Wardian case.

As from the lateness of the
season there was some risk
in sending tender ferns, we de-
layed sending these at same time,
purposing to do so in spring.

Hoping to hear ere long of their
safe arrival

I remain thy fr^d & very resp^t

Jas Backhouse

P.S. I lately rec^d some very fine
examples of Chilean *Hymenophy-
llum* & *Eichornia*! By far the
finest that ever crossed the Equa-
tor I imagine. They are very diffi-
cult subjects to import alive.
I regard it as quite "a triumph".

* addressed to Harvard University, Bot. Garden

or 50°
45° (winter) to 65° (summer) is warm
enough. High temperatures are
injurious, & sudden changes
excessively so. As a rule they
are better not watered on the
grounds. A good soaking for the
soil once a week is plenty.

I remain thy fr^d sincerely
S. A. Backhouse

Where our Hymenophyllaceae are
kept, the ^{condensed} moisture stands upon
the grounds day & night for months
together!

Catalogue ret^d by Brook post
today.

York of 2mo. 1871

Dear Dr. Gray

My last letter, posted
abt. a fortnight ago, would
explain my surprise that a
previous letter, ^{had not been received,} acknowledging
rec^t (in safety) of the case
of plants kindly sent to us.

I now return the list of
Ferns, having marked with
a ✓ the kinds which we can
supply among your desiderata.

I will gladly forward these
as soon as the weather is
suitable - in April? My
regret is that we have so
few of the kinds desired.

Our new Herbaceous Catalogue is now in the printer's hands, & shall be sent shortly. I shall be very glad if the plants of *Silene regia*, of which thou hast received roots, prove true to name.

Should opportunity offer, there are two other fine plants in your country well worth obtaining, viz *Hibiscus grandiflorus* & *Hypericum aureum*. & I might add *Silene Baldovini*?

I merely mention them, that an "eye" may be kept upon them! A little seed may sometimes be obtained

where it is difficult to procure plants. And if at any time even "a pinch" of any interesting Annual can be spared, especially if new & distinct, it would be especially acceptable. I will gladly send anything we can in return, in plants or seeds.

I ought just to say that I only send 3 or 4 kinds of *Trichomanes* & *Hymenophyllums*, as yet; They are costly species, & I should like to know that they travel safely, & can be grown freely, before sending more kinds. An excessively humid atmosphere, ranging

I will send another £10. if desired.

Believe me to remain

tr. fr. & sincerely

Wm Backhouse

P.S. I forget whether I enclosed
my last "War" tract? It may
possibly be read with inter-
est?

York 2/6 mo. 1871

Dear W. Gray

Our new catalogue, con-
taining Ferns, is now in the
printer's hands & I will gladly
send it when ready. I think
it was thy wish that we should
not send any tender ferns till
you had tried how far those
you obtained from New suc-
ceeded? But I am not
very clear how the matter was
left. For many months now
it will be quite safe to send
them, so far as weather is
concerned: so I am at thy
bidding! Perhaps it will be
best, on receiving our new Cat-

-alogue to mark a fresh what
are desired, & return it to me.

I will then gladly do my best.

We are flowering *Silene virginica*
& *Lithosp^m. caulescens* well
& are likely to obtain seed
from them. I shall be
very glad to hear that *Silene*
regia proves "true" with you.

Plants or seed of it & of
S. rotundifolia, *Lithosp^m. hirtum*
& *Silene Baldwinii* I shall be
delighted to get. A few of the
seeds of *S. hirtum* sent last
year have vegetated & I hope
may thrive.

I think there must have
been some accidental mistake
in collecting the seed of *Labi-*
-batia chloroides. We have

twice sowed it, in various situa-
-tions. In all the places (pots
included) the "produce" is simply
a profusion of *Rumex acetosella*.
I think it must have been gathered
by mistake or with it?

The plant kindly sent of *Del-*
-phinium tricolor is in flower
& likely to do well. *Lewisia*
rediviva grew well in spring
but their leaves seem as though
they could not endure the hot
summers. I suspect that it
is a very deep rooting plant
& that it has not yet deep
enough roots to enable it to
bear the sun's rays. We nurse
them most carefully. *Talinum*
trictifolium means to do well.

I enclose Drft for £10. which
may contribute to expenses of
getting roots of *Silene regia* &c.

Barnmouth, North Wales
7th June 1841

Dear Dr. A. Gray

Thy letter of the "21 June" has been forwarded to me here, where I am staying 2 or 3 weeks with my family; endeavouring to stimulate their love of Botany, Conchology &c in this "rich" district!

Lest I should send ferns that are of no value, I will beg thee to mark & return our Catalogue, which will probably be speedily received if not already? *

Do not hesitate, please, to appropriate the £10. for really. I should not feel free to keep writing & asking for this & that, as I have done, without some little pecuniary remuneration. Because though the plants & seeds sent may seem of little value, they really are of very considerable

* Many thanks for the seed of *Delphinium bicorne*

value to us, — far more than
what we seed! I believe I
must importune for more seed
of Silene rotundifolia. or roots?

Owing to a most unfortunate ac-
cident, our young man, who
has charge of the alpine & Herbar-
-Claus dept, lost the previous
seed altogether, to his own great
mortification as well as mine.

I am very glad to hear such a
favourable report of S. repens.

I expect a stronger, more erect
& more corymbose plant, with
broader petals, than in S. virginica.

Several plants from seed of
Le. thospt. hirtum & L. longifolium
are getting on well, & the Lewisia
has been the admiration of every
one who has seen it.

Remain thy frd very sincerely

J. Backhouse

P.S. Between ourselves confidentially,
I greatly regret the state of things
at Kew, & esp. Dr. Hooker! He
is earnest & energetic enough, but
he is not well seconded in the
Gardens. Myriads of fine things are
rot there, which it is melancholy
to think of. But please do not
let such a thought come back
across the Atlantic on any account.
H.B.

or in dry moss. Other plants
& bulbs are best packed in
fresh & rather dry moss - for if
long shut up ~~among~~ ⁱⁿ any damp
material they are very liable to
rot. Casks are not so good as
boxes. The rolling of casks masses
contents in the centre detrimentally.
all boxes should be forwarded by
Steamer, & fully directed ^{roughly} (painted on
the box?) to Backhouse Row, York,
England.

I think I have heard of *Cypripedium macranthum* being found
in North America. If so, it would
be valuable. He should look out
for fine *Pinguiculas*, & be sure
to take if found, all fine *Silenes*
& *Lithospermums*. *S. regia*,
rotundifolia, & *virginica*. *Lith-*
ospermum hirtum, *canescens*
& *longiflorum* are all wanted
in quantity.

York 20/2mo '72

Dear Dr Gray

I shall greatly value
the work on the Flora of N.A.
when ever sent. I am very
glad to hear of Dr Parry
going to get the *Lewisia* &c:
and will gladly pay the ex-
pense of the expedition, rely-
ing upon his letting me have
the proceeds of it, without
competition from any one else.
I could not venture to do this
except with an understanding
that I should have "a monopoly".
There would be no objection
to plants going to your
Botanic Garden at Cambridge
if care be exercised not to

Let them go out of the Garden.

It would help me to refund my expenditure if Dr. Parry could obtain & send (on his way westward) a heavy supply of nice healthy tufts of Cypripedium spectabile - say 400 or 500, if they can be obtained in quantity. I do not wish any locality that a botanist would prize to be "injured", but I imagine that they occur in profusion in parts of Canada? Should he also meet with Darlingtonia californica without much additional travelling expense, a few hundred plants would also help to defray costs. He

should be on the look out for everything "good" & especially new plants. New animals that are gay are especially valuable. All Cypripediums & showy Orchises are desirable. Calypso borealis & Orchis per-
-anena much wanted!

Seeds of fine Coniferae like Picea nobilis, P. amabilis, Libocedrus decurrens &c &c well worth getting if met with.

Also Hephrodium (or Aspidium ^{6 to 9 inches} fragrans) in quantity - 500 or 1000 roots would not be too many! Alpine plants from great elevations are always valuable if showy - such as Rhod. Lapporiceum, Andromeda hypnoides &c.

Now as to packing. The Lewisia should be packed in boxes among dry wood shavings

I can't get Aspid. fragrans
by a special order to Taler
St. George Wisconsin. next
fall. The trip would cost \$250.
CCP

Cypripedium spectabile
much in fruit. I know
of a limited locality in San Diego
Calif. when I expect to go early
in May.
CCP

If possible, I should like to
get 2 or 3000 Lewisia roots!
I will of course pay carriage,
relying upon Dr. P. ^{all plants} packing
carefully, & guarding especially
against both over-crowding &
the extreme opposite. Possibly the
Lewisias may require no
"package" at all. Their own
roots will keep them open & dry.
If any, I would advise ^{dry} shavings
only. Cypripediums come best
in sods - the superfluous earth
removed, & bedded in moss.
He will be careful to collect
as far as possible while
plants are in a fit state to
transmit. When in full growth
the chance is very bad.

I do not know how long his
"leave" may last: but if this

Expedition prove remunerative
much more remains to be
done if Dr. Parry has time
& inclination. When the summer
heat passes, & another chance
occurs for sending plants
safely. As a rule he
should collect nothing but
what is decidedly handsome
or "pretty" (except in the case
of oddities like the *Darling-
tonia*): & when he does find
a good thing & plenty of it, get
plenty!

He should also give us full
information as to soil, climate,
aspect, (shade or sunshine), dry
or damp position &c of each
species as far as possible.

How much money shall I

remitt? Draw on me for £50
(Fifty Pounds stg) at once if re-
quired.

Very resp^y friend
Chas. Backhouse

West Bank
York.

8/4 mo '72

Dear Dr. Gray

The Lewisias have come to hand in excellent condition. I am greatly obliged for the trouble that has been taken in procuring them. Do tell me freely what sum I ought to remit for them, & I will send it at once. I suppose that Dr. Parry will be able to obtain a lot more of them? as it is probably the most remunerative thing he could send. *Primula Parryi* is val.

nable; but it is to the ~~Lewisia~~^{the main} that we must look for ^{return} in a business point of view, of the outlay for his exped.

On no account let aspect - view fragments be taken, to the hurt of its "localities" for any business purpose.

When I say, "Get 5000" of a thing, please understand that all the ciphers are to be knocked off, rather than any damage done, if the plant be rare.

I should feel much more "easy" if I might pay for the volume, which will be

of great real value; much as I feel thank feel for the goodwill that offers it as a gift. I am ^{intended} glad to hear of thy ~~workman~~ trip to California or Utah in summer. If opportunity should permit of seeds being collected, I should like to be a subscriber towards the expense.

Very sincerely thy fr^d,

Chas. Backhouse

Nesperia Gucziesii (Hook)

Erysimum asperum (D.C.)

" Arkanzense (Nutt.)

" pumilum (Nutt.)

" grandiflorum (Nutt.)

Those I have underlined seem specially desirable, & the last (E. grandiflorum) ought to be got if possible!

York 28/5 mo 1872

Dear Dr. Gray

I am greatly indebted for the copy of the Flora, which came safely to hand, & the receipt of which I should have acknowledged at once, had I not aimed first to look it carefully through & send, with the acknowledgment, a list of the plants which it describes, that are likely to be of greatest horticultural value. But I find it will take a long time to do this well! So I will delay no longer, but give the names as far as I have gone. Any, or all of these are well worth looking after, I believe, if any opportunity presents. Feeling afraid also that if I wait for

a reply, I may not "catch" thee before
setting out for thy proposed summer
journey, & supposing that Dr. Parry
will be requiring some remittance,
I enclose herewith a Draft for
£60. (Fifty of which please pay
over to him, & retain £10 thyself
as a contribution to said journey
expenses.).

Should opportunity present
I should be glad of more plants
or seeds of Lithospermum hirtum
& Silene rotundifolia. Perhaps
the same party who found & sent
the roots of Lith. hirtum before,
can find a few more?

In sending the list which I annex
I quite understand that the
localities lie 500 & 1000 miles
or more apart! But I send it,
so that if any chance should

occur, it may be taken advantage of.

Believe me to remain

thy friend sincerely

Edw. Backhouse

Aquilegia formosa (Fischer)

Delphinium bicolor (Nutt.)

" pauciflorum (")

Hymenophyllum odoratum v. rosea

Chryseis cespitosa (Lindl.)

Deudrouncon rigidum (Benth.)

Cheiranthus capitatus

" Pallasii (Pursh)

" hesperidoides

Cardamine rotundifolia β

" purpurea (Cham.)

" angulata

" digitata (Richard.)

Deutaria integrifolia (Nutt.)

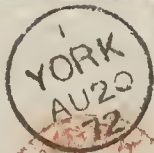
Parrya macrocarpa (R. Brown)

" arctica (")

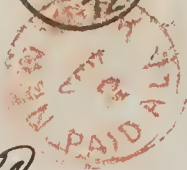
Phoenicallis cheiranthoides

Hesperis minima

(over)



1120



172

Dr. Asa Gray
care of Dr. C. C. Parry
Empire City
Colorado Territory
United States

If Dr. Gray be absent
please open this }

Within letters read carefully notes
given by the man a piece

of Nadomica

to some of the many places
which have been visited

near the regular station
of the road to the north

with the road to the north

English
C. C. Ross

Aquilegia formosa (Fischer) Sitcha & Unalaska
Delphinium bicolor (Nutt.) Dry hills as "Flat"
- Head River, towards southern sources
of the Oregon. &

D. paucifolium (Nutt.) Rocky Mts & Blue Mts
of the Oregon. &
Chrysopsis caespitosa (Lindl.) California
Dendromecon rigidum (Nutt.) Summits of Mts
nr St. Barbara; Monterey, California.
Cheiranthus capitata (Nutt.) California & Oregon.
" *Pallasii* (Pursh) & N. W. Coast.
? " *hesperidoides* & Pennsylv. Kent. Ill. & Ark.
Cardamine rotundifolia (Nutt.) (Arabis Douglassii Torr.)
Hudson Bay, Rocky Mts, W. New York & Kentucky
" *purpurea* Is² of St. Lawrence & Kotzebue's Sound.
" *angulata*. Banks of the Oregon.
" *digitata* (Rich.) Arctic America
Dentaria integrifolia (Nutt.)
Parrya macrocarpa (R. Brown) Arctic & N. W. America
" *arctica* (R. B.) — — — — —
Phenaculis cheiranthoides (Nutt.) High hills E of
Walla Wallah River, & on rocks on upper
Oregon.
Hesperis matronalis
" *Menziesii* (Hook) California
Erysimum arkansanum (Nutt.) Plains of Arkansas.
" *pumilum* (Nutt.) Dry elev. plains of Rocky Mts
" *grandiflorum* (Nutt.) & Sand Hills of
Point Pinos nr Monterey, Upper California
" *Stanleya pinnatifida* (Nutt.) Rocks, upper Missouri
& nr head of Lewis's River
Warea amplexifolia (Nutt.)
Selenia aurea (Nutt.) Wet prairies of Arkansas & Texas
Veronica arctica (Richard)

York 29/7 mo. 1872.

Dear Dr Gray recd. Aug. 29

I am in rect of thy favour
of June 17th, enclosing dried flowers of
the yellow Aquilegia, which I consider
most beautiful, & a plant highly desirable
to obtain roots & seeds of in quantity, if
possible. It is remarkable as a "var"
of *A. carulea*. Probably all the plants
mentioned in Dr. Parry's letter, sent to
me, would be valuable. I see he
mentions a "Merkusia sibirica". This
genus, & the allied *Lithospermum*, are
favourites of mine, so that anything
new & showy belonging to them would
be very welcome. Polemonium confertum
& Claytonia megarhiza also would both
be valuable no doubt. Where possible,
roots should be sent, & seeds also. The
chance by seed is generally much more
certain than by roots; but if roots do suc-
ceed, there is a gain in time which is of
great importance: for even if we get a
crop of seedlings, yet if we cannot sell

till we have seen them flower, the loss of time & remuneration is great. On the other hand a few roots blooming "proves" the plant, & renders the stock of unflowered seedlings saleable immediately.

Generally speaking, we have found that roots travel best when packed in Boxes in fresh (rather dry) moss. The moss should not be extremely dry, & yet on no account wet: but just as you would gather it in woods when ^{not moistened with rain.} ~~than when the moss is wet~~. We find an advantage in alternating layers of paper, & laying the roots closely side by side upon it; covering them with another layer of paper, & then a layer of an inch or two of moss, & so on. All packages should be sent by the quickest line of conveyance, & by Steamer. I think that Austin, Baldwin & Co have often forwarded packages for us promptly. Casks are not so good as square ^{or oblong} Boxes: for when casks are rolled, the contents are liable to form

a hard compact mass in the middle! A few Birch twigs (without leaves) interspersed among the moss &c tend advantageously to keep the bulk "open" - i.e., non-compressed.

Having been absent from home during most of last month, I have not had opportunity to examine further into the Flora of North America, but I will again enumerate the names of some plants of which I have read the descriptions & think well worth obtaining if possible. (See last page).

All perennial Gentians should be sent. We think we can cultivate almost everything if we know its native soil, situation &c! Please present my kind regards to Dr. Parry from whom I shall no doubt hear in due season. Trusting you will both be successful & enjoy your rambles in the wild regions you propose to visit. I remain thy friend very respy
(See over) J. A. Backhouse

Yor K 19/8mo 1872

Dear Dr. Gray

I am delighted with the
4 Ferns, kindly forwarded from the
Botanic Garden at Cambridge.

The only pity was that they were
not wrapped in thin Gutta Serena

I consequently arrived so exceedingly
dry that I fear best life should
be quite extinct. I have at once

sent ^{by "Sample Post"} 2 square yards of the thin
Gutta Serena to Mr. Watson at the

Botanic Gardens, in case any
thing else of the kind should ^{require to} be
forwarded by post. I also send

to ^{Dr. Parry} ~~the same~~ direct ~~(as before)~~
2 more square yards of the same ^{by "Sample Post"}.

For all plants like Ferns it is
excellent, but they should be put
in dry - i.e., not at all visibly damp.

I suppose the 3 Pellaea will grow on sunny (limestone?) rocks in rather dry crevices? & are likely to bear our winter frosts.

I do not know whether Dr. Parrish will be able to obtain more plants of these 4 Ferns, but it is very desirable to do so if possible, for they would be valuable acquisitions if we could import them alive.

We sowed the spores & the dust which was in their papers instantly.

The Sedum & Echeveria were alive. They did not require any gutta percha wrapping, indeed would have been probably injured by it. The roots of Sax. peltata also are safely landed in good condition. Many thanks for them, as for the Ferns &c. I think that ^{small} plants might be sent direct by post in thin Gutta percha, with paper wrapper outside.

I have had them so packed from New Granada &c. Dried fronds with good spores would probably enable us to raise seedlings: but there is a great gain in time if a few living roots can be imported also.

Believe me to remain
Very sincerely & respy
J. A. Backhouse

Delphinium nudicaule too is
raised here ^{in Eng^l} from seeds by hun-
dreds, so that it is not worth im-
porting as roots.

I have no doubt that many of
the bulbs sent by Dr. Kellogg will
be interesting & probably valuable,
but we are sadly at a loss to
know what soil & situation they
require & what periods of wet &
dryness, temperature &c. It is
most important to send information
of this kind with everything as far
as possible. Thousands of good
plants have been lost at the
very outstart from collectors
sending no advice of the kind.

Ever thy fr. very respt

Chas. Backhouse

Gork 5/10 mo '72

Dear Dr. Gray,

I enclose 1st of exchange for
£80. £50. of this please
place to the credit of Dr. Parry,
& the remaining £30 as proposed
(or "wished" for) for Dr. Kellogg.

I trust it will encourage him
(Dr. K.) to work on. I hope he
will be able to obtain a good
lot of the pretty little ferns al-
ready sent by post - *Pellaea Brid-*
gesii, *mucronata*, & *densa*, & the *Che-*
ilanthes. Also all the fine Lilies
he can meet with, & seeds of
fine Conifers? Is he the party
who obtains the fine yellow Colum-
bine? I am more sanguine about

that "returning" our outlay than almost anything else.

The plan proposed for Dr. P. to send his collections first to your Gardens meets my approval if thou thinks that thy subordinates are thoroughly reliable?

I have no reason to doubt it: but common prudence forbids one to shut one's eyes to the danger! I will suggest a case to explain what I mean. Dr. P. sends a lot of a new plant which may, on reaching us, take 3 yrs, or perhaps more in some instances, to become fit for sale (as good established plants).

A small portion of the same has been reserved for your Bot. Gardens. Your plants? grow well & multiply or seed. A root or two, or a pinch of seed, or the fertile ^{seed} ground of a new fern,

sent to some one else in England, would materially injure our sale in all probability. If it were simply known that the same plant was in the hands of another party (even though there was no knowledge whatever of the quantity which such party held), the damage would be unquestionable.

I do not wish for a moment to act selfishly, or interfere at all with the legitimate trading of other Nurserymen or Seedsmen, but in a case like the present it will be seen that the outlay & consequent risk on my part is considerable, & that I have some special claims connected with that risk.

The ordinary (blue) *Aquilegia vulgaris* is now quite an abundant plant in some of our nurseries. & we have bought fine strong ^{plants} ~~leaves~~ of *Darling* *leuca* at 36/- per dozen.

But in the previous letter he told me
that he had found *G. affinis* (of
which he enclosed a ^{dried} specimen). As
it will now be too late for me to
write to him at the "Empire City", I
just mention this, - not having
been aware that *G. frigida* was a
native of America. We have
a few plants of it from the Tyrol,
or rather *Sylva*.

I am much pleased with his letter
& the pkt of *Mertensia sibirica*.
Could Dr. Kellogg get seeds of
Picea canadensis, *P. lasiocarpa*, &
P. nobilis? or *Wellingtonia* seed?
or *Abies Pattoni* or *A. Hookeri*, or
P. magnifica. I see 3 *Echeverias*
mentioned in California, any of these
would be worth procuring: also
any *Cacti* (hardy *Echinocacti*? or
C. grandis). Does he know any *Pinguicula*?

Yor K 8/10 mo '72

Dear Dr. Gray

I have sent today 6 sq.
yds of the Gutta Serena paper for
F. W. Loring to take: writing
to him by same post. Dr. Parry
says that he has received none!
I regret this, but it will now be
too late for me to send any to
him. Perhaps he may be able
to avail himself of a portion of
that which I now send by Mr. Loring.

Many, many thanks for the seeds
which have come safely to hand.

I send the bag of *Argemone*
hispida to Wm. Thompson at once!

It is a good thing, I have no
doubt; but I do not wish at
all to stand in his "way", & it is

quite right to send all of one thing
to one party. I am extremely
obliged for the seed of the Aquilegia
leptoceras v. flava. In such a
case it is a great favour to
send any of it to me, & I had
not need complain of some going
to Mr. Decaisne, & to Dr. Hooker!

I naturally "mourn" over the
roots of Silene Bolanderi! but
trust Dr. Kellogg will be able to
procure a few more. I do not
quite understand whether he
sends the Silene californica?

I suppose we may safely call the
Erythronium which he sends
"E. giganteum", & say that it
is the one figured in the Bot. Mag.

My last letter enclosed £80. including
£50 for Dr. Parry, & £30 as wished
for, for Dr. Kellogg. I think it
would be well to write & ask Dr. K.
whether the Erythronium are white,
yellow, or purple? For though they
may be one species, they are distinct
for horticultural purposes, & it w^d
be a great advantage to know what
colour our roots are.

I am sure that I ought to con-
tribute towards the cost of my
trip to California. I never intended
the £10 to be sent mainly to other
people! I therefore purpose,
when sending the next £50 for
Dr. Parry, to add £20 for my
acceptance. Dr. Parry advises
me that he has sent (among other
things) 100 roots of Guthriea frigida.

I have recently rec^d a very fine
Pinguicula from the Pyrenees.

P. longifolia with spread of leaves
12 to 20 inches across! At least
individual leaves were 10 in. or
long when partially withered or
decomposed.

Very sincerely, thy friend

Dr. Backhouse

itself in autumn I vegetating then like
several other annual sp^s, ^{do, under favorable circumstances} though flowering the
2nd year? G. longiflora would
be very desirable.

I await thy order to send the
L^{rs}, when the season's supply
is shipped. I think I can
plan work for Dr. P. for all
next year, or at least a good
deal of it!

Believe me very sincerely
thy fr^d W. Backhouse

York 25/10 mo 1872

Dear Dr. Gray

My last communication
from Dr. Parry was dated "Sep. 6
Empire City."

I am in rect of thine dated
"Oct 11," enclosing another fine
packet of Aquilegia leptocera
for which I am very much
obliged. Although I should
have been glad of more roots of
Primula parryi (from the circum-
stances that we could have sold
them next year), yet I hope we
shall get a nice lot from seed
for the sale of 1874.

Although I hope the plan
of nursing the plants for a
few weeks at the Botanic Gar-

News may not do much harm, yet I confess that I do not think it a good plan.

When a plant is disposed to rot & turn mouldy after a long journey, it is quite right to examine & repack with fresh moss. The very process of exposing to the air & turning over is beneficial. But where vitality is low, it is most dangerous to excite the feeble remains of life, & then subject the plants to a second shock. It is safer to repack at once in drier material & forward direct. I fear that the longer they are unressed & the worse will be their fitness for a second journey, unless

kept till next summer, which would hardly be desirable? I feel no doubt in recommending that everything alive should be forwarded immediately on receipt from Dr. Parry (after being overhauled as proposed). So far as our experience goes, they brack as well in common Moss as in Sphagnum, provided they are not unduly compressed, & the moss pretty dry.

Autumnaria lutea is an abundant plant in England. We have sent it to your neighbourhood already! - to Mr. Sargent, of Fishkill on Hudson.

Gilia aggregata would be a desirable plant. Is it not an annual, rather than (2)?, sowing

York 31/10mo 18th 92

Dear D^r Gray

We have a pretty good
sale for Coniferous trees, &
purchase the seeds of some
Kinds almost every year.

Before knowing that D^r
Parry could obtain any for
us, we had ordered some
from one of your Seedsmen
(including "*Abies grandis*"—one
of the very kinds which D^r
P. found.). Pray send them
therefore by all means. When
we see what quantity there is

of good seed, we will gladly
make an offer to Mr. Sargent.
I am very glad to hear that
the live plants sent by Dr. Parry
are doing well.

Believe me thy friend
very sincerely

Saml. Backhouse

YorK 12/11 mo '92

Dear Dr Gray

The Box with Dr. Parry's
Seeds safely to hand.

By last post also 4 small
boxes containing

1 Erythron^{um}.

2 Cycl. alba & some Frit. recur-

~~va~~ ~~pulchella~~

3 Fritill. recurva, & another?

4 Cycl. pulchella

The boxes "5, 6, & 7" with
"Brodiaea coccinea" are not
yet to hand, but may come
by next post?

I am delighted with the
spec^{imen} of *P. suffrutescens*. It

will be a fine catch.

The little works on the
sequoia & the accompanying
one, I am also much obliged
for. They look very interesting.
My largest plant of sequoia
gigantea is now abt $2\frac{1}{2}$ ft high,
& nearly 7 feet in girth of
trunk close to the ground!

Very sincerely

Edw. Backhouse

Savannah Dec 11th 1872

Dear Mr Gray

I have just rec^d

this & return by following mail
I have Backhuses specimens
all packed out, ready to pack
and send with the box to you
to go this week. I have
written to Mr Backhous to
explain matters. I shall have
Backhuses parcel securely packed
up so that it can go direct
to him without opening, with
the 3 sets for you. I shall
send things on one parcel for
J & W. Montreal, all that
need sending from you will be
packed & marked ready to put
in Express. I hope they will
reach you promptly

Yours C C Parry

York 19/11 mo '72

Dear Dr Gray

I am in rec^t of thy favour
enclosing seeds of *Phlox cespitosa*
& ^{*Oxytropis*} ~~*Asragalus*~~ *multiceps*, with both
of which I am much pleased.

I suppose it differs from *Phlox*
Stoodii? mentioned in Mr. Greene's
charming history of the alpine
Flora of Colorado? The little
Kalmia there described, & *Paras-*
sia funbriata, & *Caltha leptosepa-*
la, & *Mertensia alpina* are all
plants that must be obtained, if
possible, next year. "*Trifolium*
nanum" must be near *T. uniflorum*?

The one great thing wanted
now from Dr. Parry is the collec-

tion of Dried specimens of the
plants of which he has sent
seeds &c. I feel surprised
that these are not sent, as
it was part of the original
proposal, & the want of them
would be a most serious loss.
I have written to Dr. P. but
fear he may have gone south.
Not getting roots of *Prim. Parryi*
is of no importance compared
with not receiving these
dried illustrations: and as
our Catalogue will have to be
prepared in a very few weeks
I feel extremely sorry at not
having them: fearing that the
want of them will sadly
spoil our sale. I think it is

nearly 2 mo^s since we heard
from Dr. P. & I fear that this
precious parcel, if sent, is lost.

How I long for the ~~next~~ remaining
portion of the Flora! The plants
of *Prinula suffruticosa* are
safely to hand & I am very
much pleased with them.

I feel concerned at thy
writing so many letters to me.
Pray economise trouble & time
in this way as far as possible.

Very sincerely

Chas. Backhouse

W. Long named I
promised to you —
It is a pity you did

not pick out an early
set of the specimens for B. 43

York 27/11 mo '72

Dear Dr. Gray

The box of seeds is safely
to hand; also the box of roots
(*Lilium Washingtonianum*? &c)
for which I am very much
obliged. We have notice of
the arrival in Liverpool
of the boxes containing Dr. Parry's
plants, so that they will be
here in a day or two no doubt.
All rec^d so far appear in
very good condition.

2/12 mo. The boxes of plants are in
& contents appear in good condi-
tion. I will not delay sending

of this letter longer, though as
yet I cannot go into any
detail about the plants.

I have much pleasure in
enclosing the Drft for £10.

But please keep the £20

Myself! I had rather send
something direct to Dr. Kel-
logg. He seems active & earnest
& is "worthy" to be encouraged.

Thy letter informing of dis-
patch of Conifer seeds is
to hand this morning, & by
this afternoon's post we
reck the little box containing
the *Gymnogramma triangularis*

It is evidently a little green
But had I not been told
the name, I should (in their
present curled up state) have
said, without hesitation, that
they were *Cheilanthes argentea*
from Lake Baikal in
Siberia! When unfolded,
they may look very different.

In haste

I remain thy fr^d sincerely
W Backhouse

York 5/12 mo. '92

Dear Dr. Gray

The Conifer seeds are safely
to hand. ^{a few hours ago} The plant of the yellow
Aquilegia arrived in excellent con-
dition; also the other plants & bulbs in
box No. 2.

Can we safely rely on the Aquilegia
Leptocera coming true from seed?

If we have to wait till the plants
flower before sending them out to
our customers, a whole year would
be lost, which would be a great pity.
Were your plants, which flowered so
finely, raised from seed? Aquilegia
"sport" & hybridize so much that one
naturally feels rather afraid.

Now that the fronds of the little
Gymnogramma triangularis are unfolded
I see that it is much less like
Cheilanthes argentea. I feel truly

It ought to be. Plants here
mostly isolated & flowered long
after the other species had passed.

sorry to hear of thy having suffered personally from the terrific fire at Boston for the loss of \$1000 is not a trifling one by any means. I trust I may be able, sooner or later, to help to mitigate it. At present, pray do not send any part of the £10. to Dr Kellogg. I will send him £25 myself instead.

At leisure (if there be such a thing now-a-days?)

I should feel greatly obliged by brief descriptions of the size colour &c of the following, so that I may be able to give descriptions of them in our new Catalogue

Hespericodium crystallinum.

~~Cyclobothro~~ *Gunnisoni* (Is this same as *G. venustum*?)

Allium californicum

Calochortus uniflorus (The plant figured for this in the Bot. Mag.

has flowers $1\frac{1}{2}$ inches across of a bright rosy pink. Those sent ^{to us} (450 bulbs) were marked "white & yellow". Can it be uniflorus?

250 Bulbs of "*Cal. pulchellus*" were sent, & afterwards many bulbs of "*Cyclobothro pulchella*". Are these two identical? Yes we have not *Aspidium maculatum*.

Our New Catalogue of Ferns shall be sent when ready. The old Edⁿ is exhausted, & a new one must be prepared shortly.

Thine truly

W^m Backhouse

Yor R 9/12mo '72

Dear D^r Gray

Thy favour is to hand, accom-
panying the ferns ^{to} from D^r Kellogg
(Boxes & packages by post)
with which I am very much

pleased. They came in excellent
condition. The enclosed letter
for D^r Hooker is duly posted on.

I spoke in my last of sending
£25 direct to D^r Kellogg. It
occurs to me however that it
might be difficult from my not
having ^{his} distinct address, &
I hear a rumour too that the
Pacific R.R. is blocked up by snow,
although I do not imagine
that American energy will allow

such a hindrance to last long,
yet I thought it was best not
to send till I heard from thee
again. I do not think

Aspid^m-fragrans would be
worth a special journey, un-
less it could be obtained in
large quantity — say 500 roots
I from the previous letter
on this subject, I imagine that
it is rare everywhere, & not
likely to be attainable in any-
thing approaching such quantity
without seriously "robbing" the
station, which I object to.

Thine very sincerely
Ch^s Buckhouse

The roots of *Pellea densa*, Bridg.
He appeared in fine health. We
sow the *Torreya* seeds at once.
Thanks for "the last of the *Agri-
legius*" They are beginning to
taste fairly.

decidedly "covetable"! — as also
Eritrichium arcticoides.

Did it ever strike thee that if
the great oceanic current, which
pours in to the gulf of Mexico,
could get through into the Pacific,
~~that~~ it would send a volume
of tropical "warm water northward
through Behring's Straits*, & bring
back "the glacial period" upon
Northern Europe; by the main
(perhaps only) polar return
current descending southward
between Greenland & Norway;
instead of being split into frag-
ments by the now opposing
Gulf stream? Why should
not the "glacial period" of
Northern Europe have been

West Bank,
Nork.

20/12 mo '72

Dear Dr. Gray

I am very much obliged
by thy continued kindness,
in sending me seeds from
Mr. Clark (of Sequoia gigan-
tea &c): which are safely to
hand. I notice that *Abies*
Williamsoni is marked
as synonymous with *A.*
Pattoniana. The former
(*A. Williamsoni*) has for
years been known in this
country as a synonym of

* Gulf stream in fact.

A. Mertensiana (called also "*A. Albertiana*", on what authority I know not).

Perhaps we have been quite wrong. But I shall be glad to know that the seed sent is the true *A. Pattoniana*. I hope we may be able to raise the *Whitneya*.

It will please me to hear that my letters acknowledging rec^d of Dr. Parry's Seeds, & Plants, & another enclosing the L^{rs} are all safely received. I have

rec^d an interesting lot of Seeds of rarities from Labrador! including *Passia Kotzebuei*, *Dryas tenuella* (*integrifolia*) &c &c.

What a lot of fine alpenes seem to be in Western Esquimaux land - the Behring's Straits district. I fear however that the chance of getting communication with such an out-of-the-way district is very bad. I obtain my information from "The Voyage of the Herald 1845-57, by Berthold Seemann".

Dianthus repens, & *Artemisia Androsacea* (both figured) are

York 2/1 mo. '73

Dear ^{Ind}
Dr Gray

I am in rect of thy
two letters, also of the 2 roots
of Cypripedium from M^r. Clark
(which looks "promising"!): also
a number of roots of Erythro-
nium (same as before I suppose?).

Pkt of Hammamelis I send
on to Kew, as it will be
more fit for their collection
than ours. Prunella suppurates-
cent, seems all right so far.
The Prodrax coccineas &c
came all right.

Dr Parry's dried spears he will
probably be here soon (in a few
days I expect). Our new Fern.

Catalogue is preparing for the
press. The old stock is exhaus-
ted, or I wd have sent one before.
The new one will not be very
long before it is ready.

I will take care that Dr. Hooker
is well supplied with the
things sent to us, but it is
better every way that we
should establish them
first, as I believe we do
this better (i.e. more quickly)
than they, at Kew.

In much haste, & desir-
ing much happiness for the
new year to thee & thine

Yours very sincerely
J. Backhouse

prefers our raising the plants
& sending them, when safe, to know
he will gladly supply him with
as many as he desires.

Pray excuse my writing more
at present - for even this is
"contrary to Doctor's orders"!

Very sincerely thy frd.

J. B. Backhouse

Yor K 10/2 mo. '73

My dear Friend

Illness has prevented
my earlier acknowledging rec^d
of thy three letters last sent.
I think my last letter menti-
oned my having remitted £25
direct to D^r. Kellogg. I now
only wait for a "statement"
of thy own expenses on my
account to remit another
Bill of Exchange to liquidate
them. Many thanks for the
informⁿ about *Calochortus Gun-
nisonii*, *Despⁿ crystallinum* &c.
Our *Romanzoffias* & most of
the *Prinula supertextens* are
alive & doing well. The Bulbs

we sold by Auction in London
did pretty well though there
are only a limited number
of purchasers all bulbs are
well known. The L. Washing-
tonianus ~~var~~ made 3/- to 4/-
on an average, & some of the
Calochortus 1/6 to 2/-. The price
is good enough, if only a large
number could be quilted: but
time alone will do this.

I am interested in John Muir's
letter, which I return with thanks.
The *Pellaea mucronata* came in
splendid order & are beginning to
grow famously. Thanks also
for the informⁿ respecting *Abies*
Williamsoni which is quite
clear & satisfactory.

It will be exceedingly interesting

if a chain of communication can
be opened with the Unalaska
region. Dr. Parry sent seed of
Eritrichium arctoides if to
be identical with what he calls
"*E. glomeratum*". But he sent no
~~*E. confertum*~~ plants.

I shall have pleasure in sending
our Orchid Catalogue to Mr. Sargent
also our new one of Herbaceous
plants to the address when we
receive them from the printers.
— probably in 2 or 3 weeks.

The last box containing ^{seeds} ~~plants~~
of *Oreodaphne Californica* &
Quercus chrysolepis is safely
to hand, for which please accept
our best thanks. I will take
good care to supply Dr. Hooker
abundantly. But I believe he

Yor K 3/4 mo '73

Dear Dr Gray

Many thanks for the
flowers of "Calochortus elegans"
also for the information about
the "Brodiaea terrestris". The
former, we rec^d as "Cyclobottus
elegans" but it is clearly a
Calochortus. One of our
Erythronium has flowered,
but tho' similar in colour, is
very small (1½ inches across.)
I think it is only a result
of "weakness", & that more
vigour will give large flowers.
I fancy we could manage
the Eritrichium, if we could
get a supply of plants & seed.
Perhaps Dr Parry will get it

this year.

I remit the £11. to Mr. Bentham today, according to thy wish.

My health, I am thankful to say, is considerably restored. We have had a good spring season commercially. The rain-fall here last year was remarkable. Our usual annual fall is nearly 25 inches. Last year it was above 40 inches.^{i.e.} On our little city, which covers just about 4 sq. miles with the suburbs, 4,000,000 tons of water fell over & above the usual quantity.

Very sincerely thy friend

Edw. Backhouse

next autumn - & hope he will!
for it will take long from
what was sent last year to
recover the expenditure. Seeds
are slow, & particularly good
things like *Gentians*. We
are getting the fine new
Adonis physaica into good
order at last. Many are coming
into bloom though not yet
rooted. Our large specimen
plant of *Aquilegia leptocera*
is looking very well & will
I expect, soon make a fine
show. Excuse this fragmentary
letter & believe me to remain
as ever thy friend sincerely
J. A. Backhouse
Romanzoffia also in fine flower.

York 12/5 mo '73

Dear Dr. Gray

I am greatly obliged for
the two parcels of *Pringuiculas*
(*Lutea* & *relativa*) which both arrived
safely, & are very interesting.

Our *Lewisia*s look very well
& the *Prunella suffruticosa*s
promising. A large portion
survived, & some are now
beginning to root. We have
Phacelia sericea in flower. I
like it!

Is *Polygonatum giganteum*
easily procurable? If so, 200
or 300 plants would come in
well. We got a few roots some
years ago, but they do not grow
very freely. I think it
cannot bear moist places.

as a fine plant if it placed
on a decidedly moist, (though
scarcely wet) bank, has rotted
off in a way which *C. vertical-*
latum & *C. multiflorum* would
not have done I think.

Pray do not lose any chance
of getting Lithospermum
hirtum. *L. canescens* is so
good that *hirtum* (described
as much larger in flower)
must be fine indeed.

And please have an "eye", if
opportunity offers, on Clitoria
Mariana & Drosera filiformis.

The Yosemite ferns are doing
beautifully & please us much.
We are disappointed with
Erythronium giganteum. Its
colour is not at all equal
to that of *E. Douglasii*.

I am glad to see that some of
the seeds of "Eritrichium
glomeratum", sent by Dr. Parry,
are vegetating well. I suppose
it is identical with *E. arcticoides*.
Comparatively speaking, but few
of the roots the sent of Pentstemon,
&c &c have done well, so that
we shall, of many things, save
barely enough to see any bloom.
How I long to see the rest of
the Flora! I trust its pages
are advancing.

Simultaneously with the
letter about the Penicillula lutea
&c, came one from Dr. Kellogg
inclosing a small pkt of seed
of their "White Coast Lily" - the
species yet to be decided on.

I think that Dr. Parry will
send me a lot more roots

York 7/6mo. '73

My dear Frd
Dr A Gray

I wrote a fortnight or more ago, acknowledging the safe arrival of the *Pinguiculas*. They are doing pretty well. *Prinula suffrutescens* promises to grow. It likes a cold moist shady place. We have had lots of *Pyxidanthera barbulata*, but have lost everyone. Ought it to be dry in winter? Does it grow in the shade?

I hope thou wilt succeed in getting seed, & more roots? of *Silene Bolanderi*. We have 2 atoms of it (only) yet alive. But *S. Californica* is doing capitally with us. Do get *S. rotundifolia* again if possible & especially seed of it. *S. virginica* I should also like seed of. & 200 plants of *S. Pennsylvania*! It grows with

Pyxidanthus; I perhaps 200 or 300
(*Cyp.^m acule.* could be got also.

We have had them all sent from
the neighborhood of Phila.

Pray pardon my plain style of
writing! I know thou wilt under-
stand what I mean. — viz, that if
any suitable & convenient opportunity
occurs for getting any of these, they
may not be lost sight of. But
on no account tax thy time or
attention in consequence for my
sake. *Hypericum adpressum* too
is highly desirable.

Cyclanthus pulchella is very fine
with us. *Pentstemon humile*
is in bloom too, & very pretty.

We have lost most of Dr. Parry's
roots, but have a few of many kinds
left, that may possibly serve to

illustrate them. Many of his seeds
are coming up well: abundance of
Gentiana affinis, *Oxyth. splendens*,
Erigeron macranthus & some others.

Very sincerely thy friend

Edw. Backhouse

Nurseries, York,

22/9 mo 1873

My dear friend
Dr. A. Gray

I am in rec^t of thy
fav^r of Sept. 2.

What distresses me most of all
is the information of Harland
Bonetas's barbarity in regard to
Cassiope hypnoides. It is a per-
pet disgrace to anyone professing
to be a botanist & I believe
"a professor" to have done, or even
endangered such a thing. No
such act ever receives anything
at my hands except reprehension
protest, & not the slightest idea
of any such thing (so far as I
can remember) was ever made

known to me. When, years ago,
I first began to send out Col-
lectors it is possible that this
advice may never have occur-
red to me; from the thought of
danger not having done so: but
I can hardly think it was so.

Do not trouble to get any
more *Tyridanthus* at pres-
ent. We will first try if we
can grow it: for we lost all
that Harland Bonetas sent.

A few (40 or 50?) of *Lycopodium*
dendroideum, if sent with, 100
be welcome. We can do well
with 200 or perhaps 300 of
Polygonatum giganteum. I do
not think we could give more
than this of the *Drosera*, but will
do the best I can. 100 or 200 *Pul-*

-Monarda virginica would be
desirable & 50 Clitoria Mariana
Is there any chance for
Lithosp hirtum & L. Canadensis.
Both are desirable, & also Silene
virginica. I only mention these
in case opportunity that is fa-
vourable occurs.

Personally I feel doubtful
about the specific distinctness
of Aquil. chrysantha & caerulea!
Though I suspect that our good
friends at Kew regard me
rather as a "splitter" than other-
wise! My range of knowledge
from their cultivation is as yet
however but limited.

Yours very sincere ly
W. B. Backhouse

YorK 3/11 mo '73

Dear Dr Gray

The box containing the roots of *Lewisia* &c &c is to hand & its contents in good condition. Many thanks for the trouble taken; also with last consignment of Dr. Parry's which I hope to receive in due course. I mourn over the *Actinellas*! Even half a dozen strong roots would have shown the plant; we shall probably have to wait 2 or 3 years ere the seedling plants

are in fine blood. The cost
of carriage to Boston on the
5 boxes certainly does seem
rather heavy: but I hope
the contents will eventually
reimburse. Let me know
what I am indebted to thee
for all purposes, including
this class of expenses, & the
cost of polygonatum, Dios-
corea &c. I will at once
remit. Does the rose-
coloured variety of *Nymphaea*
odorata grow in thy neighbour-
hood? We should much
like 2 or 3 roots, or

100 if easily procurable.

Pray forgive if I have asked
this question before, I received
a reply. If so, it slips my
memory.

Believe me to remain
thy frd sincerely
Saml Backhouse

P.S. I rec^d, a month ago, a letter
from D.^r Kellaggy stating that
he had sent me a box of
Goswite Ferns. They have
never come to hand or been
heard of, & I have written to
tell him that the box appears
to be hopelessly lost. I am
very sorry for it.

A.L. You did quite right in
taking examples out for
the Gardens.

I like the *Mammillaria*
I wish Dr. Parry could have
sent 200 or 300!

M. vivipara (Haworth) &
Opuntia rutila (Nutt) both
seem to be still more desir-
able species. J.B.

For K 18/11 mo. '73.

Dear Dr. Gray

The boxes are to hand.
The *Polygonatum*s are in fine
condition, I will give us a
good supply. I cannot give
a very good report of the
others. Most of them were
exceedingly "drawn" & blanched
like the tenderest sea kale,
so that our utmost skill &
care will be required to save
them through the winter.

I doubt whether the moisten-
ing of the moss helped them
much, as nearly the whole

of one kind (*Townsendia*
sericea I believe) were quite
rotten on arrival - the snow
being more than damp! 5 or 6
of these may survive.

I hope that with great care
a considerable proportion of
the others may be saved. The
Prunella parryi are very
fine & good.

I "grieve" most at Dr. Parry
not having sent any *Erioch-*
ium *areoides*. The genus
is a special favourite, & I
looked upon it rather as the
"gem of the lot". But I know
that he was unavoidably late
in the field, & trust he may be

able to obtain plenty (used)
another year.

It was a great misfortune
too that the *Phloxes* were
dead. They were first class
plants, & so is *Actinella*
grandiflora. We have these
coming on from seed, but
they are, of course, slow in
developing.

I await thy advice as to
what I should remit for
the *Polygonatum* &c. I think
thou spoke of the collector of
these being poor. If so I should
wish to pay liberally even if
it do not leave much "margin".

Thy frd sincerely
(over) J. A. Backhouse

Portland Apr 3 1874

Recd. of J. B. Baskinbrook 11/20/00
by L. 20 through Prof. A.
Gray by Mrs. Prof. Carr
J. H. H. H.

Nurseries, York.

4/6mo 1874

Dear Dr. Gray

Small box safely to hand
containing Agave utahensis
for which many thanks.

Also for the most interesting
pamphlet on Botanical
explorations in Western Wyoming
&c, for which I am also in-
debted to thy kindness I suppose.
Did not the travellers last
year succeed in obtaining
seed of the choice things that
are enumerated - Aquilegia
Jonesii &c &c? If so it is much
to be regretted, & I understand
that M. Roehl (the Mexican &c
traveller) intends to start im-
mediately for the region of

them - i.e., the "Yellow Stone region"
doubtless with an eye to intro-
duce them into England first!
I cannot blame his energy
- far otherwise! but I shall
nevertheless feel sorry if
he supplant Dr. Parry.

Could any dried specimens
of the plants of that region
be spared for me? I would
gladly purchase a series, such
as I understand were formed.
And permit me to ask when
the rest of thy own invalu-
able work on the Flora of
N. America is likely to be
published? Having been favour-
ed with one half of it, I
long to see the rest! But pray
let me pay for it, for I know
such works are very costly.

I want too to get Engelmann's
descriptions of the genus
Isaetes

Primula suffrutescens is
promising to do well this
year. We have several
growing very nicely, & lots
of P. Parryi. The 3 pentste-
mons are all in flower.

Lewisia does best in a cold
moist position, where not a
ray of sun can reach it.

Should opportunity occur, I
could well take in another
100 good roots of Cyp^m acaule
And if a chance presents for
half a dozen strong roots of
Clitoria Mariana, please do
not forget it.

Silene regia is doing well

with us; but most unfortunately
the plant sent was a wretchedly
bad variety of it! with very
small flowers & very narrow,
incised petals:—widely different
from the description of its flowers
in the Manual. A plant of
Polygala paucifolia is in bloom
with us & very pretty. We
have the fine Cyp^m macran-
themum in flower also—a rarity!

Very truly thy friend
J. A. Buckhouse

Nurseries. York.

8/6 mo. 1874

Dear Dr. Gray,

It is most unfortunate that the *Mertensia virginica* ^{by J. T. Temple,} were sent, as, alone, even if in good condition, they are barely worth the cost of carriage!

It was the Lith^m - hist^m that I really wanted. The other was only a secondary plant, worth sending if the other was obtainable. I believe I wrote to Dr. Parry telling him not to mind about the *Mertensia* in a subsequent letter, but he probably did not receive it, or not in time. I gave no instruction as to the state in which

the plants should be collected, & I don't not that, in giving the order, Dr. P. assumed that the party ordered to collect, would use proper discretion as to when. Altogether it is a huddle, but cannot be helped.

I think it will be much the best for all Dr. Parry's consignments to be sent direct to us, so that you may have no further trouble on our account. A remark in Mr. Sargent's letter received this morning gives me real pain. He says "Both Dr. Gray & myself had hoped to get more liberal contributions to this Garden, in view of the many valuable plants you have received. Through it, & the amount of trouble ~~we~~ we have taken to advance your interests, but of course that is a matter we

"entirely leave to yourself."

As regards the trouble you have taken, I most fully admit it, & this is just the reason why I must ask Dr. Parry to give you no more on my account. But as regards an equivalent for plants received, I cannot admit it, if he refers to plants which we rec'd neither from Dr. Parry nor Kellogg, nor from parties whom we paid for what they sent. Beyond such cases as these, I feel not the shadow of a doubt that commercially we have sent more than an equivalent. I do not refer merely to the plants last sent. In that case we sent all that Mr. Sargent asked for that we could suitably send. In the

very same letter he blames us for sending to another party, by his (Mr. S.) order, several very fine & vigorous roots of "Glox-inias" because they were growing! These, he says, did, in consequence, & that we ought to have known better than to send plants that were not fit to send. Well, he sent us a list of various plants which he marked, without apparently any reference either to cost or fitness for sending; & when (using the best judgment we were able to, & being fully aware of how much we were indebted to thee - especially for the great trouble taken on our behalf) we omitted such in his list as we felt sure could not suitably be sent, - then we are blamed for that & practically told that we are stingy! It really pains

to pay in money for all plants
(such as the *Cypripedium* &
spectabile &c) collected specially
for me?

I fear that Mr. S. was an-
noyed at the plants not being
ready for him in Liverpool.

He has himself alone to blame
for it. I personally requested
him to give us a week's notice.
He wrote & told us the exact
day on which we were to send
them off, & we obeyed to the
very day! and now he blames
me for their not being ready
for him, involving "Express" &
charges, breakage at N.Y. custom
house.

Pray tell me how I can
recompense thee personally for
the great trouble which has,
I fully acknowledge, been so
often taken in caring for, & re-
packing Dr. Parry's & Kellogg's plants

It will give me real pleasure to
do so. One thing more I will
touch upon. I know that
Mr. Sargent asked in his
list for "any *Trichomanes* &
Hypnumphyllums" & that I
sent only 2 or 3. If there be
want of prudence in sending
fine healthy *Gloxinias* which
are "just beginning to grow",
it would be tenfold greater
in risking such ferns as these.
Of all ferns they travel the worst
as a rule, & therefore I merely
selected as an experiment
two strong robust kinds that
I thought most likely to endure
the voyage. If wished, I will
willingly risk a few more, but
please understand that on an
average it is a 30% or 40% risk
with every plant ^{of these} (according to
commercial value). I will

order a copy of our new Catalogue
to be sent, & if thou wilt
kindly mark it freely, I will
try to redeem my character!

Believe me to remain
Sincerely & res^{ly} thy fr.
Edw Backhouse

P.S. Since writing I have referred to
the list of plants which Mr. Sargent asked
for. They were just 33 in number.
Of these we sent 19, & added about
a dozen plants that were not asked
for, but which we thought would be
of value to your gardens. The value
of the plants sent was close upon £28, ^{excluding the 2 extra ones}
& of those omitted, £17. I find that only
two Trichomanes & 1 Eodea were asked
for, & that all of them were sent. The
omitted plants were merely what we
could not supply at the time. 4 or 5
of them we can now supply, but not the
others. E.B.

me very much, & the more so
because I think it is unjust.
If there is one thing I hate, it
is to be thought niggardly, &
I think that charity would have
supposed that there was some
mistake or misunderstanding
on my part, rather than this?
If Mr. Sargent had sent a long
list of plants that we grew
& we had omitted a number
under the idea that we were
sending "enough", it would have
been very different. But I
think I can refer to past
sendings (of Ferns &c, direct to
myself, when a marked list of
desiderata was sent to me) to
show that I was at least
willing to send all that I
could that were suitable for
sending? Moreover I think
I have asked to be allowed

calus adonens & Actinella grandiflora are growing finely.

Believe me to remain
very sincerely thy frd

Wm Backhouse

York 1/8mo. 1874

Dear Dr Gray

I should have earlier replied to thy kind letter had not absence from home prevented. I believe that prof. Sargent's letter to which I referred in my last was the result of a misunderstanding on his part, & that had he known the real facts more correctly, he would not have written as he did.

I have sent him a quotation from his own letter of the order we rec^d relative to the unfortunate case of plants, which will probably do all that is needful in the way of explanation. And I endeavoured also to show him that in endeavouring strictly

to obey that order, we could have had no other motive than a desire to please.

It will give me much pleasure to send for your Gardens examples of anything that D.^{rs} Parry or Kellogg send to us direct, when such are fit for transmission.

But it is ^{often} a slow process when they have to be raised from seed.

I am much obliged for the 2 bags (of Fraxinus anomala & Dalea) both of which are safely received.

I have since rec^d ^{from D. Parry} by post a pkt of Gilia setosissima which promises to be a little gem.

Do ask for anything we possess freely, forgetting for ever all the misunderstanding before alluded to! To be acting upon the idea even of a "commercial balancing" is a thing which I hate! Though

I do not pretend to be free from human frailty, I have still some ability to realise the truth of the words - even in botanical exchange or supply - "It is more blessed to give than to receive".

The sending of the Mertensia roots alone was a mistake. It was the Lith^m hirtum that I really wanted specially. The other was quite secondary & not intended to travel alone. I am sorry that D.^r P.'s correspondent was not able to get the Lith^m, for it would have been a valuable addition.

Prinula suffrutescens is improving with me, & one or two plants have flowered. The blossoms are small as yet, but the colour is charming. We have flowered Cactha leptosepala also; & though not yet flowered, Rauan

DS

Thanks for the pk^t of
Fremontia & Fraxinus anomala
safely rec^d some days ago.

York 11/9 mo. 1874

Dear Dr Gray

I beg that thou wilt
not give thyself one moment's further
concern about the Mertensia virginica
& Dr. Phloxes! Casualties of this
kind in one way or other so often
occur that one gets a sort of accu-
stomed & "case hardened". And
in this instance it really is not
of much moment. We got a fair
lot of the Mertensia some time
ago from a Continental Nursery,
& I expect that Dr. Parry will
get more of the Phlox in Colorado.
There was a trace of life in ^{or two} one
of the plants just to hand.
It would grieve me to think that
any mishap of this kind was causing
the more than momentary regret.

If thou wilt kindly let me know
what their transport &c cost, I
will remit for it at once.

And please do not take any
trouble about Lith. hirtum. If
any good opportunity for obtaining
it presents, all well; but I cannot
think of having thy time occupied
in catering after my concerns.

I will gladly supply examples
of the things Dr Parry has sent
seeds of, when we raise them.
Judging by the dried specimens
there will not be many of them
of much horticultural value;
but there are, among the annuals
especially, 5 or 6 that promise
well, & some of the perennials
(e.g. the *Dalea* & *phlox*, & *Calochortus*
flexuosus) which look propitious.
I think it is likely that I shall

send the seeds of some of those
which ^{apparently} have a "botanical" value only
~~merely~~, to Dr Hooker. Not but
that I would also send the
showy kinds to him afterwards;
only, in the first instance, a very
small quantity of some of them
would suffice for us, & these as
objects of scientific interest rather
than of hort. value. I quite un-
derstand that Dr Parry sends the
set of specimens, quite under-
standing that some only will
be of commercial value. I antici-
pate his gleanings in Colorado
being of the most value in that
way. I forget whether he sent
more of the *Agave Utahensis*, but
have a vague idea that a reserve
lot were sent to the Bot. Gardens?

If so, they can come any time.

Very sincerely
Chas Backhouse (over)

Ranunculus adoneus is
doing well with us.

For K 30/10 no. '74

Dear Dr Gray,

The package of Trichomanes
Petersii so kindly sent, arrived
in excellent condition, & I make
no doubt will grow well. Many
thanks for it. I never received
it before. Dr Parry has sent
me another fine lot of seeds,
from Colorado. The plants from
same district also came to hand
in much better condition than those
of the previous year's transmission.
Altogether I am very much
pleased with this year's work,
& am sanguine that it will
largely ^{& perhaps abundantly} compensate for the less
successful previous work (of
the 2 preceding seasons).

I will remit the £1 extra
to Dr. Parry (to cover the dis-
bursements on my acc) as
suggested.

I will also bear in mind
thy desire to receive plants of
the kinds marked with red
on the list sent to me.

Very sincerely & resp^y thy fr^d
J. B. Backhouse

On "2nd thoughts" I will defer
sending the £1 extra to Dr. P., &
remit direct. I think there must
be some mistake in thy reckoning
& that we owe more? Was not
the cost ^{of the carriage} of the Pulmonarias &c
paid by you? I cannot think
of not paying for this, even though

they did prove a failure. Because
they ought not to have been sent
to you in a growing state, & it
was altogether my "risk".

J.B.

Nursery, York.

12/1 mo. 1874

Dear Dr. Gray

I have much pleasure
in enclosing Drft for equiva-
lent of £15. which will
fully cover the details of
the exp. Many thanks for
the pkt of seed favoured by
Prof. Sargent. By a letter
recently recd from him, he
seems to have been even more
pleased with our grounds, by
contrast with what he saw
afterwards, than he was at
the time of his visit to us.

I am glad that his estimate
does not retrograde!

The Cyprinodontium will be
very welcome.

Very sincerely

Ed Backhouse

change to a warmer region, during
your cold & damp spring, would
be prudent & beneficial: but
beware of debilitating heat, &
especially of "lack of fresh air".

I know that I shall be for-
given for thus freely writing.
I understood well what
"poor health is," & can sym-
pathize with others who have to
bear it.

Believe me to remain
thy frd sincerely
Wm Backhouse

P.S. I enclose Drft for £10.
for Dr. Chapman. ^{It can be endorsed forward?}

I think the *Sarracenias* should
be sent in tufts, bedded down
in nearly dry moss. The moss
should be scarcely damp. Much
moisture quickly rots them
when confined long. W.B.

End of May
Draft - July 3

£ 10. -

York 10/5 mo. '95

Dear Dr. Gray

I am very much obliged
by thy kindness in sending the
roots of *Silene rotundifolia*; I
have written to thank Prof. Sar-
gent for forwarding them, &
have sent him our new Cata-
logue to pick from. The
Silenes have reached me
in fair condition, & I think
we shall succeed with them.

I grieve to hear of Dr. Chap-
man being in such a condition.
I will send him £10, & ask
him to send me a good sized
box full (100 good tufts?) of
Sarracenia Drummondii &

* The flowers should be cut off.

also plants of S. pittacua
if he can find them.

I should also like him
to send Pinguicula elatior
& P. lutea* (the bright yellow ones
as well as a few of the erosera).
If he will write to me
direct, I may possibly be
able to help further.

I am sorry to learn that
my health has been so poor,
but hope that this southern
trip will be availing for its
restoration. I doubt whether
great warmth is the best anti-
dote for the class of affections
named. A clear bracing
& atmosphere, ^(not too cold) combined with
regularly alternated exercise
& repose usually invigorates
the system & cures it, by
a general increase of vigour,

to throw off the local disorders.
Illness, such as these, generally
results from an overtaxed
frame. The strain brings
about a depressed condition,
in which "clouds form sponta-
neously"; just as they do
in "nature" with a low barometer!
Think of Simpson the arctic
explorer & discoverer of Banks's
Land, who was so "consumptive"
when a youth, that it was
thought he never would
reach manhood! and yet
he headed (virtually) 3 suc-
cessive arctic expeditions — perhaps
the most successful in extent
of discovery ever made — & regis-
tered the greatest cold ever
registered (up to that time) by man!
and eventually died from what
may be called "an accident",
wholly free from disease.
I can well believe that the

* or P. villosa — I thought the name of the second.

it a "popular" plant. Pellea Breweri
too, may command a limited sale,
if it proves hardy? Woodia Oregana
is rather more hopeful.

We grow Primula Parryi grandly
now. Deep rich moist-peat soil.
Lewisia too is quite "at home". We
have not yet flowered Polemonium
confertum, but have a fine lot of it.
Ranunculus adoniceus & Actinella
grandiflora also grow well. Gentiana
Parryi (but few) & progresses very
slowly. G. affinis free, & plenty of it.

We have lately got a grand lot
of the charming Daphne rupestris
from South Tyrol; a virtually new
plant which will be highly prized.
Also Primula spectabilis.

Very sincerely thy friend
Jas Backhouse

York 21/10 Nov. 1875

Dear Dr Gray

I am afraid lest some-
thing has happened to Dr
Chapman, as I have never
heard from him direct, or
received any Sarracenia Drum-
mondii, or any other plants.

Now have I yet heard from
P. S. Herckmeier respecting
the Silene Baldwinii: but
as these would take some
time to establish, I am not
surprised, - expecting to hear
when he has them ready to offer.

I am almost sorry that a root or two of it was not sent to me at first, lest Mr. Berckmans should fail with it? We have done well with S. rotundifolia & now have some fine vigorous plants of it thriving famously.

Dr. Parry has not found much in the region he has explored this summer. The best consignment, by far, was a fine lot of young plants (4 to 6 inches high) of Picea concolor. But unfortunately they were taken up with such bad roots (practically no roots at all, in many instances, — the fibres being torn off) that

we have to treat them as cuttings, & thus lose a season in being able to sell them. The next best new thing is Spiraea cespitosa; & a lot of Agave Utahensis will be valuable. But this is nearly all that is of commercial value beyond what the cost of carriage will neutralize!

So that I calculate upon a rather heavy loss this season — hoping, however, that a good part (at least) will be made up, in due time, with the Piceas.

The district of Utah in which he has worked seems remarkably unproductive of showy plants. Syntherisma pinnatifida possibly may turn out pretty well, but I have no idea that we shall ever find

The Nurseries, York,

18 - 1 - 1881

Dear Dr Gray

I was much pleased to see your letter; I warmly welcome you to our land! If you should eventually be able to visit York, it will give me much pleasure to have you & Mrs Gray under my roof - should you be able to make a stay here?

Most gladly will I send you strong plants of both the Cypripedium (*speciosum* & *pubescens*) that are "certain to flower" (as far as we can judge).

But I cannot think of making any charge. I am only glad to be able - in a very small way - to requite your past kindness! But nothing can be sent now! The mean temperature here (for 4 consecutive days & nights) has been under $+9^{\circ}$ Fahr! The minimum being $-5\frac{1}{2}^{\circ}$

Three nights running, the temp. averaged less than -1°

This seems almost "American"! It is the greatest ^{continuous} cold ever recorded here, I believe.*

Believe me yours
Very sincerely

Wm. Backhouse

P.S. You will doubtless let me know when & how to send the Cypripedium if the frost continues.

*Last year, for a few hours, the mercury fell to -62°

West Bank,
York.

17-11-87

Dear Dr. Gray

Yours to hand this
morning. I will gladly
reserve you the Cyprus.
I shall hope to see you
"in due season".

Is there any chance of
your being at York
during the Mtg of "The
British Association"?
(August & Sept.). If so
I wish you would take

I gave a book at my
house. You would have
every facility for attend-
ing the lectures, & Mrs
Backhouse & I would
be delighted to have you.

Believe me

Yours very truly

W^m A Backhouse

West Bank,
Dork. 23 - VIII - '87

Dear Dr Gray

On what day may we have the pleasure of expecting you & Mrs Gray here? If I know the time I will endeavour to meet you at the Railway Stn, though you will have no difficulty, as my house is well known.

We hear it rumoured that you have a daughter travelling with you. If

so, we shall quite hope
to see her under our
roof too.

I could have wished
that your visit had been
at a "more flowery season":
for in April, May, June &
July, our grounds are
much more attractive
in this way than they
are at present.

Still I trust you will
see something to interest

Believe me

Yours very sincerely
Edw Backhouse

Our sojourn among the
Pyrenees (for a month), & the
opportunity of "luxuriating"
in the grand scenery &
marvellously rich flora
of that region, was a
great counter balance to
the mental strain caused
by deep anxiety. And as
we were permitted ^{simul-}
taneously to see marked
improvement in our dear
lad, the "scale" of happiness
began rapidly to ascend.

He still continues nicely,
& the Drs seem hopeful
that we may be spared
the necessity of taking him
away again. If it might
be that we went ^{again} voluntarily,
the "strain" would be of a
very different order.

West Bank,
York.

24 - X - 82

Dear Dr Gray

Very many thanks for
the seeds, & also for your
kind & welcome letter.

If I were to attribute any-
body's "silence" (in letter
writing) to a want of kindly
feeling, I fear I should
have to estimate myself
at a very low level! as a
still greater transgressor
in the same direction.

But the friendships which
can only be sustained by
frequent communication,
are not of the highest order?

One of the species, kindly say,

is new to us, viz Phyllodoce
glaucoflora. P. empetri-
formis we grow freely &
much admire for its beauty.
We have a few plants of
Cassiope lyopodioides; but
as yet they are feeble.

We once had a bit or two
of Bryanthus Breweri
(a beautiful sp. in the way
of B. erectus, but with
more condensed habit (?) &
deep rose or rosy-purple
flowers. But this we have
lost for years & past, & it is
not now, I believe, in the
country.

We look back upon the
events of last yr (in con-
nexion with the Mgt of the
B. A.) & the delightful,

companies that favoured us
with their presence at
West Bank, with very
great pleasure. I well
remember thinking (when
it was over) "This has been
perfect. No jar of any
kind. Something to remem-
ber with gladness for ever."

And though, since, a
heavy cloud swept over
us, in the dangerous ill-
ness of my son Willie;
— involving our having
(as a family) to leave Eng-
land for 3 or 4 months —
yet even this, I am thank-
ful to say, seems to have
been invaluable for even-
tual good to all of us.

& works, a perfect & eternal harmony.

All the members of our family circle unite in a message of kind remembrance to Mrs Gray & Yourself with

Yours very sincerely
Edw. Backhouse

2.

West Bank,
York.

I have read your "Biographical Notice" of Mr Darwin with great interest. I believe that the impetus which he has so powerfully given to scientific investigation, & the marvellous contribution he has made to scientific knowledge, will tend to advance Truth - in its highest sense.

And I cannot as some do, draw a sharp line of separation between "scientific" & "religious" truth! They spring from the same Fountain, &

will certainly be focused
eventually to converge
there, when the mists of
prejudice & error pass
away.

I am often astonished &
grieved at hearing people,
(who believe themselves
Christians) speak of "Dar-
winism" & "Science" in gen-
eral, as if their direct ten-
dency was adverse to Relig-
ion — just as if they thought
that Spirit & Matter had
two (opposing) creators!

That they cannot get
authority for such senti-
ments from "The Gospels," I
feel certain: and therefore

can come to no other conclu-
sion than that, if they think
they can, it is because they
do not & cannot (as yet)
read the Gospels aright: nor
probably any portion of the
Bible.

How much of "human
environment" of sacred
things will have to be
torn away, before spiritual
truth — as given from the
Fountain Head — can be
received in its purity & its
simplicity! When that
time does come, Science
will cease to be "a scare",
because "the spiritual eye"
will be mounted to see
in all the creators words

The Nurseries, York.

4-1-1883

My dear D^r Gray

I am very much obliged for the little plants, so kindly sent. They arrived safely, & look fairly well. It is quite likely, that we may ask Mr Barrett to send more.

But just now my time & thoughts are closely occupied with the prospective journey of my wife & our two sons to the South of France. Willie - the younger - is consumptive; & though we trust not beyond the range of recovery, still it is a formidable case.

My Daughter & I purpose following them a few weeks later. Should Willie be favoured to improve, we hope to return home in May.

I have to thank you also for the two interesting pamphlets sent. Had I leisure at present, I should like to tell you a few of my ideas connected with the "Darwinian Theory"; (which does not alarm me in the way it does some!), but I must refrain at present.

We feel so sorry to hear of your accident, which must have been very painful & trying. Such things make one feel both how great

How uncertain are the
blessings of health & sound-
ness!

I must not add more than
a message of very kind
remembrance to Mrs Gray*
& yourself from all our
circle.

Yours very truly
O. P. Backhouse

* & especially from Mrs B.,
for the pretty card & good
wishes, ^{sent for her. clapper!} which she heartily
reciprocates.

four fine Golden Eagles passed
in "full sail." Very near to us,
— a most interesting sight.
We were about 5000 ft above
the sea level, "cruising"
among the sharp crags of
the ridge & botanizing to our
heart's content. *Saxifr. ^{Hothorn} cotyledon*,
Rosa alpina, *Scilla lilio-hya-*
cinthus, *Globularia ^{Pyrolas} hana*, & a
host of other interesting things
made it quite "a feast" in its
way, & a remnant of snow to
sit down by, & eat, to cool
ourselves, was most accep-
table! I sent many 100^s of
roots of alpine plants home, &
hope that some at least will
prove treasures. With love
from our circle to Mrs Gray
& yourself. Believe me
Yours very sincerely
O. Backhouse

West Bank,
York.
1-1-1884

Dear D^r Gray

It was indeed with no
small gratification that I
read your kind & sympathizing
letter, which was laid on
our table this very morning!

Mrs Backhouse & I both
feel your kindness very much
at a time when I think I
may truly say that the sym-
pathy of our friends is speci-
ally grateful. For, though
the shock we have sustained
has largely passed away,
in its immediate physical
effects, yet I think that we

realised our loss now, almost more than we did many weeks ago.

I am glad that you are able to give a good report of your own & Mrs Gray's health, in fair degree.

Your tendency to do too much, I can quite believe in; as well as in Mrs Gray's; but I do hope you will be ^{both} careful, for the sake of others, as well as your own!

I work on — in botanical matters, mainly as "a business necessity" — & in archaeological matters as a recreation, attractive because of past recollections, & yet sad from

this very cause. It often feels as though it would be impossible almost, ever to be really "happy" again: and yet when I look at what many others have to bear, I feel that in very many ways, we have been "mercifully dealt with"; & that, in time, a calm may come, after the storm.

We all had great delight in the grand Pyrenean flora last spring & summer.

James (my son) & I were travelling, on one occasion, among Gentians (vars of *G. acaulis* & *verna*) on a very sharp calcareous "arête" to which we had climbed in a melting snowskin, when

West Bank,
York.

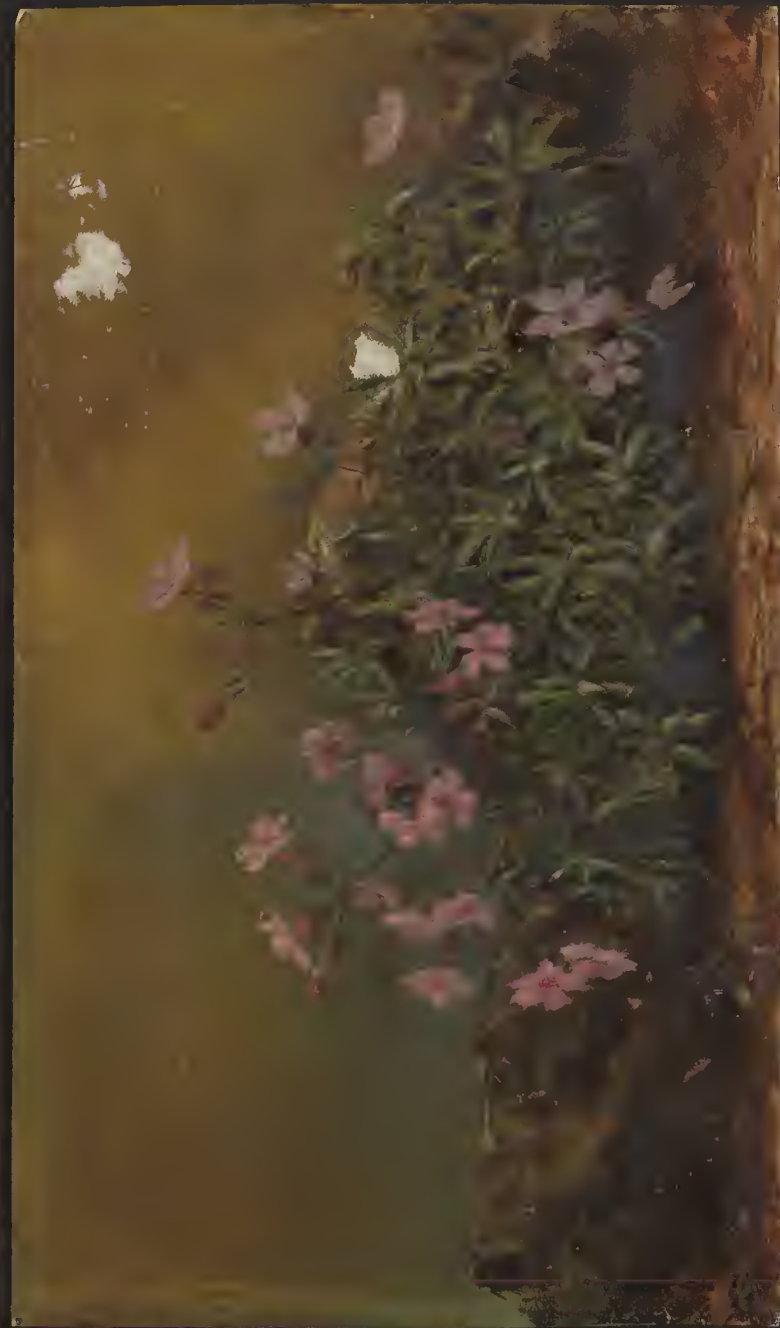
13 - V - 1884

My dear Sir

A young friend of mine
— Mr Philip Sewell — has made
a drawing of the little alpine
(Androsace?) which you so
kindly sent a root of to me
about 2 years ago.

Thinking that you would like
it, & perhaps thereby be enabled
to identify the species, I have
pleasure in forwarding it.

The plant is now in fairly
good health, & some small
cuttings taken from it seem
to be rooting. Should they
become well established, &



grow well, I will gladly
re-supply (!) in case you
have not succeeded with
it? Or we may perhaps
get it from seed.

Trusting that your health
& that of Mrs Gray continues
good, & with kindest regards,
in which my family joins
I remain

Yours very truly
Wat Backhouse

P.S. Our Gardens have been
very gay & charming! but the
long dry time we have (local-
ly) had in Yorks hire, carries
flowers over with great
rapidity.

Androsace sp. ? fls. 1835. Hume's name - faint - Every Mt. USA. -
Denby Gr. Wm Gray without

" O, if the soul grew strong through suffering, only!
If but, through trials it may reach its goal!
I will rejoice, although my way be lonely,
And all thy waves & billows o'er me roll!"

West Bank,
York.

West Bank,
York.

terminated by the upheaval
of the volcanic district of
the Isthmus of Panama?

Before that time, the gap at
Behring Straits may have
been much wider, as it
too, is, I think, a volcanic
region, which may have
undergone considerable
change. Perhaps it is a
worthless idea of mine, &
some "fallacy" may not be
detected through my ignorance?

Thine sincerely,
Chas. Backhouse

51290 21000
21 1880
New Haven, Feb. 12, 1880.

Prof. Asa Gray,
Dear Sir,

The Professors in the Theological Department of Yale College have laid upon me the pleasant duty of communicating to you their grateful sense of the service which you have rendered to them and to the students under their instruction.

You need not be told with what charmed attention your two lectures on "the Antagonisms of Scientific and Religious Thought" were heard by the highly intelligent assembly which crowded the Harquand Chapel on Thursday and Friday of last week.

For my associates in the Faculty as well as for myself, I may say, We are thankful for this added demonstration that the supposed "antagonisms"

are not necessary to science or to religion,
but come from imperfect knowledge and
mutual misunderstanding; and that
leadership in science is not inconsistent
with reverent acknowledgment of God
or with faith in God's redeeming Son.

Very respectfully, Yours,
Leonard Bacon.

W. Point. Jan 7 1840

My dear friend

I rec^d your kind letter yesterday, and am much indebted to you for it. I have been prevented from writing to you, or Dr Jorey for some time, by the alarming sickness of my little girl, She was attacked suddenly in ~~a~~ most singular manner. She at first complained for two nights that her pillow hurt her head we then perceived a swelling on one side of her head, and the ear on the other side appeared red, ~~and~~ as if frost-bitten, The swelling rapidly increased and in an hour had covered her forehead, and one eye so that she could not see with it. Her hands, feet, knees, back ~~the~~ successively swelled, causing intense pain, The swellings flew in this way from one place to another for several days, and then diminished, leaving her flesh covered with large purple spots as if she had been violently bruised, We, at one time, had little hope of her recovery. Three surgeons who saw her were unable to tell what was the matter with her, and thought her situation very alarming. There was however a sudden change for the better about 8 or 10 days since, and she has since gradually improved, although still occasionally troubled with slight swellings in her joints. If you, or Dr J. ever heard of a similar case and can tell me the name and nature of the disease, you will oblige me

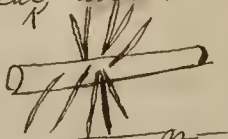
by doing so. The anxiety and fatigue which I suffered during this sickness made me ill myself, and I was unable to be present at the Examination except for a portion of the time. I have now recovered and as the Examination is finished I hope to have a little leisure for our favourite pursuits. I am very glad to get Ehrenberg's list of our West Point organisms, although I am unable to tell to which forms all the names belong. The *Amphydiscus rotula* is easily

recognised and I annex a drawing, which I made yesterday by means of cam. Lucida

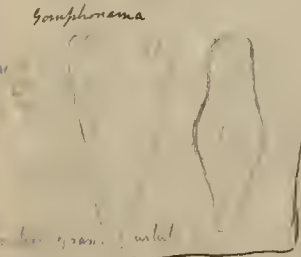
Amphydiscus rotula new genus from West Point, Conn.



$\frac{1}{100}$ magnified

and my highest combination, I have added $\frac{5}{100}$ of a millimetre as seen by same power. The expanded ends are irregularly lobed or notched and excessively thin at the edge. I have examined these bodies in every possible position, which the use of the compressor and a drop of water easily enabled me to do. I can form no idea of their real nature, I must look out for them in a recent state. The comparison to "a thread spool" is very appropriate. I have much doubt whether the siliceous spicules which Ehrenberg refers to Spongia, are derived from sponges at all, for in the first place I have never seen them sponges in our logs, and I have seen bodies which I believe identically attached like the well known siliceous infusoria to small stems of aquatics. Thus  I shall look out for them again next spring.

I see that Ehrenberg gives the name of *Gomphonema paradoxum* to one of the bodies, I think there are several species of this genus in the great earth, but as the *G. paradoxum* of Agardh is a marine species I should doubt whether it occurs at W.P. This genus is usually classed with Algae, but I have seen the frustules moving freely as the most common form is this, these frustules



are usually attached to a long flexible filament, and then are often united as in the small fig (a).

The species of *Navicula* except *N. viridis* I cannot determine, neither can I tell what forms are referred to, by the names *Coconema* and *Gonotia*.

I hope you will send your translation to Pillingham, and I will try to follow it up as soon as possible by an article accompanied by accurate figures of the more remarkable forms. I am only troubled with the vast number of forms, I must I believe select the more remarkable ones - some are real beauties. I give on the next page a sketch of a

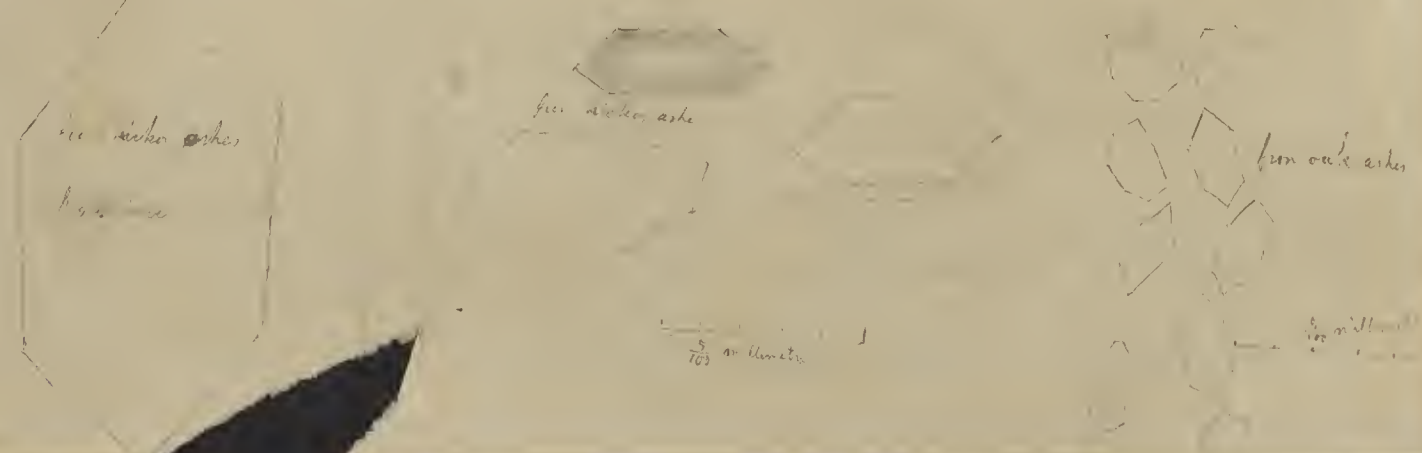
rare and elegant form

from Krontz's pond,

The large figure A, is copied hastily from a drawing made with care by cam, lucy. The small figure B drawn by the eye from a double specimen moderately mag. This species is entirely ^{different from} anything I have ever seen before and from its size and the distinctness of its markings is very remarkable. I think I shall ask Illiman to have some copper plate ~~engravings~~ made to accompany my article on Infusoria, for I cannot make good drawings upon stone, the drawings being outlines merely would not be difficult to engrave and should not cost much.

I have done but little at botany this winter, for many reasons; I hope however to work a little at it before long. I lately tried a method of examining the ashes of wood &c which ~~promises~~ some good results. Spread a thin layer of Canada Balsam on a slip of glass and then while moderately fluid, touch it lightly to the white ashes produced by ~~any~~ cinder of any wood burning slowly, where not disturbed by too strong a draught. An exceedingly thin layer of ashes is retained by the balsam, (the rest being easily blown away) and in this layer

the particles of ashes have the form and nearly the same position that they had, as left by combustion. In examining the ashes of oak and hickory by this method I was surprised to find great numbers of polygonal bodies, arranged in lines parallel to the fibre of the wood. I at first thought them to be crystals, but now suspect that they may result from earthy matter deposited in the cells of the medullary rays, the polygonal form of which, they retain. Whatever their origin their existence is interesting and may lead to some important consequences. They may for example be found to have peculiar forms in diff. species - may be present in ashes of lignite, coal-boned wood &c. I annex the drawing of some of these forms as seen in hickory, and oak.



I am working away at the marine Algae, ^{which} I picked up at Stonington last summer, and occasionally succeed in identifying some of them, ~~a~~ number however still remain undetermined, I feel the want of books on Algae very much. Can you through any of your correspondents obtain specimens of the following species (most of Azaroth as N. American) - viz *Thorea viridis*, *Ceramium rubrum* *virgatum* (N. York) *Ceram. thuyoides* - *Anadynomene stellata* (Gulf of Mexico) *Davalia pedicellata* (N. Y.) *Sphaerococcus multipunctatus* *angustissimus* N. Y. - *S. Torreyi* N. Y. Only the last is in Dr J. ^{com. luc.} herb.^m
I hope that you and the Dr will take a trip up here in the spring - I wish to see you much, Can you send me a drawing, made by your new microscope, of some familiar object to enable me to judge of its powers.

P

Dr. Asa Gray

corner of Prince & McDougall St

New York

I hope you are getting on rapidly with the Flora, and that you will soon publish another part - As Dr Torrey will read this, it will be unnecessary for me to address him in person - Give to his family my kind regards - and believe me, his and your sincere friend

J. W. Bailey

P.S. Is it possible to get hold of an article by Meyen (in Nova Acta nat. curios. Tom XIV 2^d part, p. 769)? It gives some new genera of algae, the figures of which I wish to see.

College of Phys. & Surg.
New York. Nov. 1842

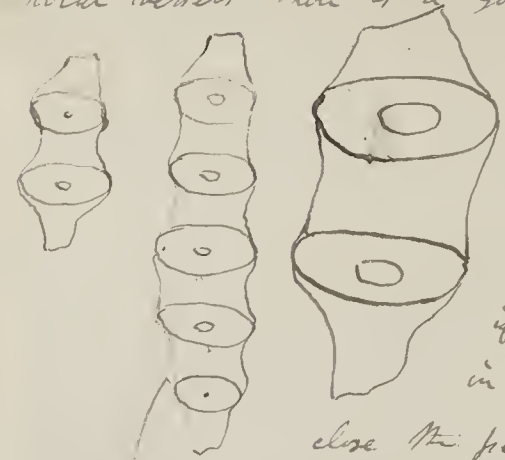
Dear Gray

I write in haste from Dr Torrey's room
at the College - your old stamping ground - to ask you to
send the accompanying pamphlets in the way to reach those to whom
they are addressed - I believe I have sent about as many as I
did before, but I have forgotten the names of all those to whom
copies were first sent - I have just sent a package to Duckett
with copies for English colonists &c - but have sent none to the Continent

I am busy on the subject of the crystalline matter in plants particularly
trees, and think I have got some interesting general conclusions, and novel
matter, novel at least as far as I can judge from the English and
French publications on this subject - I want you to look into Meyen's
first volume and see if there is much important matter on this subject -
If there is, will you send me the vol per Harnden's express to care of Dr
Chilton - or if short, scribble off for me the high Dutch and I can make out
its meaning tolerably well - I have the 3^d vol of Meyen belonging
to you and will leave it with Dr Torrey for you

I noticed a day or two ago, a curious structure in the external

portion of the vascular bundles of *Cypripedium vulgare* - Outside of the
 chief vessels there is a good deal of tissue composed of cells like these



having very thin walls, and very thick discs or rings,
~~which~~ dividing the large cell into smaller ones

The discs sometimes show only a central spot indicating a
 perforation - The structure is such as would result
 from a common annular duct, the rings should thicken
 in the direction of its plane so as wholly or partially to
 close the perforation - I strongly suspect that is really the origin

of these discs, but I find no mention of any thing analogous in Lindley, botany

I hope you find your new duties and situation very pleasant -
 As I write in much haste excuse ~~me~~ abrupt termination

and believe me ever cordially

Yrs Dan -

Your friend

J. W. Bailey

Ans Gray M.D

Professor of Nat. Hist

Harvard University

Cambridge Mass

West Point. June 28. 1844

My Dear Sir

I have the first opportunity allowed by the conclusion of our laborious June Examination to answer your letter of the 23^d. I would gladly furnish you with the drawings you wish, of Bacillariae and minute Algae, but I am afraid to undertake it. I have an amount of positive engagements on hand that I look at with dread and fear I shall not be able to accomplish. Still I think that if you could visit me here I might possibly aid you in the selection of striking subjects for your drawing and give directions about the colors proportions &c. I do not expect to make any long excursions this summer, and if you can be here ~~after~~ in July you will be almost sure to catch me, and if you will give me a weeks notice of your intended visit I can promise you to be at home.

I rejoice to hear from many sources that your botanical lectures were received with the interest which I knew you would be able to excite.

I think there are many matters connected with the doubtful microscopic Algae, and the possibly allied, although decidedly animal Desmidiaceae & Bacillaria that might be made very interesting in a lecture, and I am glad that you are going to take them up.

I hope you find the new Microscope all that you expected. I long to take a deep through it. I suspect that its possession by you will be followed by numerous discoveries in botany &c. — I saw Dr Beck's microscope in Philadelphia, it was made by Powell and it certainly is a fine instrument. It shows the lines on the scales of Podura in an admirable manner, and decidedly better than than they can be seen by my Chevalier. Yet its mechanical arrangements are far less convenient, and for a working instrument I prefer my own.

If you will come on and spend a week or so with me, you will find a room ready for you, and I shall be delighted to have a good long talk over our favourite studies. We can work together with my microscope and you can make notes of many matters which I think you can work into your lectures.

Let me know soon, whether, you can come and when,

My plans for the summer are vague, but I have determined not to work any. I have thought of a visit to Fort Hamilton for a few days, also of a short trip to the Catskills and the Helderbergs, and of another to visit Dr Horton at Grassville Orange Co. - All these are so near that I can be back home in a days journey - So that if I know when to expect you I can always arrange so as to be here.

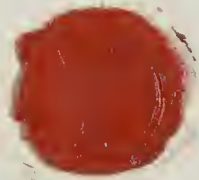
Do not you and Dr Torrey want to join me for a day or two in a tour to the Catskills, I would be delighted to have your company. You could come on together from Princeton, leave your baggage at my house, and be up to the Mountain House, in a few hours. Ask Dr Torrey about this -

Give my most cordial greetings to my dear friends in his family and tell Mrs Torrey and the girls that we will always be truly delighted to see them here at our house.

Believe me sincerely your friend

J. W. Bailey

Dr Asa Gray
Professor of Natural History
Harvard College
Cambridge
Mass



West Point. Oct. 1844.

My dear Friend

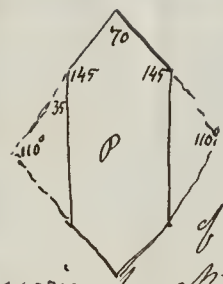
I feel under too many obligations to you, not to endeavour to make some effort to comply with your wishes expressed in your last letter, and therefore although greatly pressed, at this time of the year, with multifarious business, I have forced out time enough to send you some rude sketches of the crystals in plants.

My studies thus far have been chiefly confined to di-cotyledonous plants and among the results are the following

In the great majority of di-cot.^s trees, shrubs and many herbs there occur vast quantities of crystals which are occasionally ^{as in Rosa ruginosa} unmodified oblique rhombic prisms (fig 1) but more generally the same form with the acute basal edges (ëë) replaced ^(fig 2 & 11). The plane angles of the faces M. are about 70° and 110° as given by a great number of measurements in plants of many different families. Crystals of this form occur ^{abundantly} in all Leguminosae, Rosaceae, Sapuliferae, Betulaceae, Ulmaceae, Surantheaceae & also in Pinus, Platanus, Xanthoxylum, Ailanthus, Simpliciana, Guaiacum and a vast number of others. I have not found them in Compositae, nor Cruciferae. Twin crystals fig 12, 13 are very common, they are particularly large in the bark of cherry. These crystals may be seen in situ in the portions of the inner bark of Locust, chestnut, oak, willow &c and present a beautiful mosaic of gems (particularly beautiful by polarized light) - These crystals agree in form and composition, My experiments appear to show conclusively that they are composed of Oxalate of Lime.

A second form less common, among Di-cotyledons is shown in figs 15 to 19. They are long prisms with the lateral planes at right angles, but the oblique terminal planes prove that they belong to the same system (Monoclinic) with the preceding - The plane angles on one face are shown here  - This form (single fig 15, 16 & 19) - (twin fig 17 & 18,) (and in bunches fig 20 & 21) is common in Carya, Quillaja, Eriocarya and a few other Di-cot.^s also variously modified in all the Iris tribe among Monocot.^s You will see by the annexed figure ^{next page} that the plane angles 70° , 145° , 145° at one end of the prism are just those which would be given on plane P of the forms ^{fig 22} mentioned if planes were joined cutting off the

these lateral edges thus,
to be altered by an oblique



The plane angles at the other end however appear
intersection of the plane P. with some intermediate plane
of the above mentioned plane angles, and from the 2
kinds of forms sometimes occurring together I am induced to believe that they may be modifications
of the same primary. In chemical action both agree with the belief that they are composed
of Oxalate of Lime - Both forms produce bunches of crystals ^(conglomerate raphides) fig 20. 21, and

These bunches often occur in plants where the single crystals cannot be detected. Bunches are
particularly abundant in Polygonaceae, Malvaceae, many Urticaceae &c. Rows of these bunches
may be seen beautifully in the ashes of the leaf of *Salisburia adiantifolia*, ~~also~~ scattered
in vast quantities in leaf of *Nelumbo*, also scattered in leaf of *Carya*, *Salix* while single
crystals of the first form fig 2, are placed in rows along the midrib and principal veins -

The bunches in *Rhus* and many other plants have been analyzed and prove to be
Oxalate of Lime -

The number of crystals of form fig 2 is truly astonishing - in fig 14 from Locust you will
see that each cell has its crystal - The cells average $\frac{1}{1250}$ of an inch in size, and
taking two layers of these cells (one to make up for the mesh work in the other) it follows that
in a square inch of the fiber of locust no thicker than a sheet of paper there must be
 1250×1250 or $\frac{1250}{1500} \times \frac{1250}{1500}$ or more than 1 1/2 million of crystals - These crystals exist
not only in bark and leaves, but also in wood of trunk and root.

Some forms not referable to any above mentioned by me were found in a few
diactylidens, thus octahedral and square prismatic forms were found in *Rhus* - very minute
cubes in cells of tuber of potato, among the starch globules (see fig 23) - These I have
not yet analyzed - neither have I studied the acicular raphides so common in
Onagrarica - *Vitaceae* among Diactylidens and also found in vast quantities in Monactylidens

I would mention however that the "bifurcates of Turpin" are present in all Arvidae
and may be ~~made~~ taken out from leaves long dried in herbaria and made
to discharge the raphides by moistening them

These



elliptical vesicles precisely like the bifurcates in form are common in *Portulaca*, but I have
not made them discharge their raphides -

The figures I send were all drawn by Camera-lucida to the same scale, which is
annexed in fig 24 which represents $\frac{10}{100}$ ths of a millimetre equally magnified
with the sketches - Should you have any of these figures engraved tell the
engraver to make all the lines of the crystals straight and smooth - In tracing them
off I have made them rough and have not time to correct faults -

As Silliman is to publish my memoir on crystals in his next January number
I think it would hardly be fair to ~~publish~~ publish these results prior to the appearance
in his journal, but if your next book is not to appear until after that period you
can use these freely - If sooner let me know and I will arrange matters with him
so that I think he will not object.

I am very anxious to see Pagen's paper - I have only seen meagre abstracts which
appear to contain important errors of translation.

I have all the experiments on Hydrogen to show to day - So excuse haste
and believe me ever

most truly Yr friend
J. W. Bailey

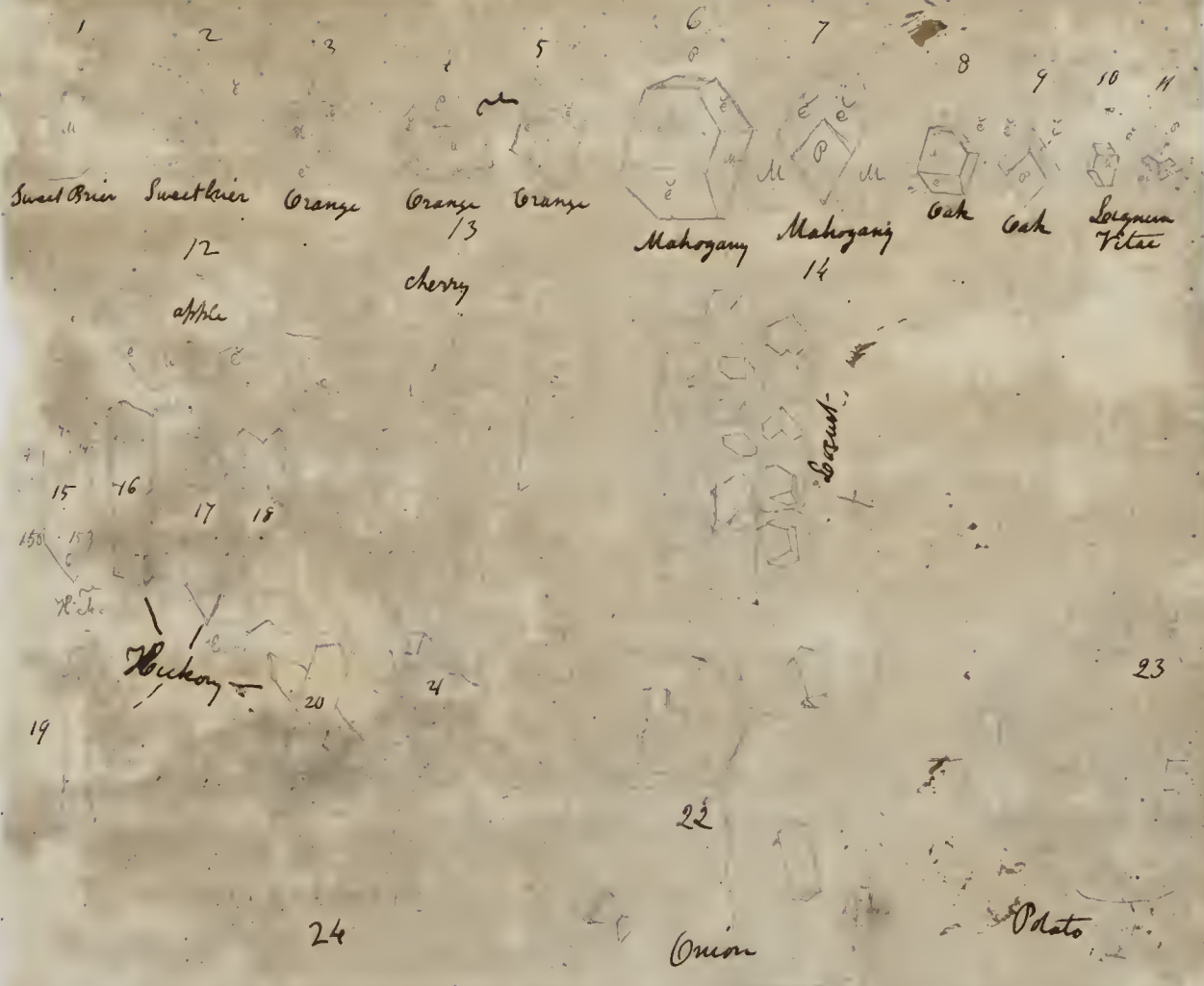
1004

Prof. Asa Gray

Harvard College

Cambridge

Mass



WITH OCTOBER 1844 letter

West Point, July 3, 1848

My dear friend

I am indebted to you for your letter and your advice concerning the Algae, but if you wish to lay me under eternal obligations you can do so, by taking the whole job off my hands.

I never wished to undertake it, and positively refused it when first offered to me, and I only regret that I ever gave a reluctant consent to take the task provided I could get assistance from abroad.

Harvey's offer "to share authorship, labor and proceeds" with me appeared perfectly fair, and his request to be allowed to study the whole collection was perfectly reasonable. I did not anticipate so much objection being made to sending the collection abroad. If you and Dr Torrey cannot suggest some way of getting the Algae into Harvey's hands, and thus give him the means of making the Report, I shall as soon as possible return the Algae to Washington and gladly get my neck out of the yoke. The more I look at this job, the more I see how utterly absurd it is for any one in this country to undertake it - Indeed I do not believe that any one but Harvey can do it, and I confess I do not sympathize with the national feeling which would prevent his having the full credit of the scientific determination of the specimens. If you are going abroad, could you not take the Algae off my hands entirely, and while abroad get Harvey ^{aid} to work them up into a report which ~~you~~ you could publish when you return as your joint labour? If you can fix it in any way so that I can get out of the scrape I shall be most thankful. Do let me

know, what course you think best, and particularly whether you will be willing to take the job off my hands.

I expect to start for Washington soon, to be gone for a few weeks but you can direct your letters as usual, If I should happen not to return before you come from the West, you will find Mrs Bailey at home, and she will be most happy to give you ~~and~~ and your lady a most hearty welcome. I trust however that I shall be back myself before you get ^{back}, for I am very desirous of seeing both you and your letter half.

I am enjoying a laugh at the Londoners, I sent over specimens of the Navicula Spencerii (which I could readily resolve by means of either Spencer's objective or by Dr Beck's objectives made by Powell,) and ^{a number of} the members of the London Mic. Soc. have been trying for a month with their best instruments to resolve this object, and they own that "they can make nothing of it." They of course think that Spencer's lenses must be something wonderful, or else that I have been quizzing them. The fact is that their lenses like yours and Coles will ^{as I fully believe} show these lines easily, but the management of the light required is so novel to those who have been accustomed to central light and achromatic condensers that I do not wonder at the failures. Beck owns that he would never have succeeded, if he had not seen me manipulate, yet he can now see the lines even by his $\frac{1}{8}$ th objective.

I have just sent to London the most explicit directions I could give as to the management of this object, and I hope soon to hear that they have succeeded in the determination of the lines in question.

I think it probable that I may stop a day or two at Princeton on my way to Washington. I shall consult Dr J. about the Myce, but I shall rely mainly on you, and I do hope that you will show me some way of escape.

Yours with unceasing regards
J. W. Bailey

Prof. Asa Gray
Harvard University
Cambridge
Mass.

West Point, N. Y. March 24, 1852

My dear Prof

I take pleasure in sending you by mail to day, the pamphlet you ask for. You must make some allowance for the ~~circumstances~~ ^{circumstances}, which produced it. It was not only the result of such observations as an invalid could make without much exertion, but it was put together under similar disadvantages of ill health, &c. &c. I am considerably in your debt for brochures, you need not trouble yourself to keep a postage account with me.

I am very glad to learn that you will notice Hareney's book. I did not see a copy of it until about 10 days ago, and then it was a copy which I bought. I have since received a letter from Hareney (the good fellow) in which he mentions that he had requested Prof Henry to send me a copy. This, however, he of the Smithsonian has not yet done. Among the points to notice besides those which will occur to you at once, are, the completeness of the work up to the present time (I could add only one or two species to the list of N. American Melanospores, so that it is all the guide necessary for the study of our plants, 2^d The introduction of the Pacific plants as well as those of the Eastern coast, and I would stir up travellers (if possible) to bring home from the N. W. Coast those highly interesting forms, *Thalassiphycium clathrus*, *Costaria Turneri*, and the extraordinary *Sarcocystis Sutkeana*, of which no specimens have yet been successfully preserved - If the small specimens were put into alcohol or Goodby's solution they might be saved. (See pp. 85 to 87) I would mention also what a rich treat the *Orthodisperms* will furnish when worked up by Hareney, and allude to his study of the living plants

along our coast from Halifax to Key West, and the very interesting observations made by him at the latter place. As for the beauty, accuracy, cheapness &c of the work they speak for themselves.

I have only ^{heard} of you through the Joreys since your return from Europe and was glad indeed to learn that your serious accident had caused no permanent injury. I presume now that you are an old-married man. you do not work quite as hard as you once did, I trust Mrs Gray will not allow you to do so.

My health is pretty fair now, and I would be off for Europe at once, if I did not fear commotions and eruptions in the political world which would make it labour lost to be on the continent for some time to come.

Mrs B. joins me in kind regards to your lady and yourself

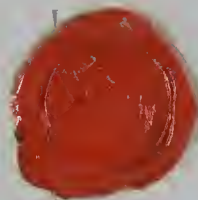
Yours very truly,
J. W. Bailey

home

Miss



Dr. Asa Gray
Professor of Natural History &
Harvard College
Cambridge Mass



Dear Prof

W. Point. May 23, 1854

I send by express to day some plants which I received yesterday from R. Far West, Believing that they will be made more of in your hands than in mine, I turn them over to you. A pretty, just a full grown *Cereus giganteus* will be, if you set it to flourish! Please acknowledge receipt of the box. I copy below the account furnished by Lt Tidball, U. S. Army of the plants he sends, viz.

"The plant marked *Cereus giganteus* is found in no other place in the world than upon a strip of country near but not exactly upon the "Colorado Grande" extending from about the 35th° down into Sonora Mexico. It is very abundant there and grows to the enormous height of 60 ft. but I measured some over 45 ft. As a general thing it grows up in a single straight stalk resembling a fluted column in architecture but it often has branches; very often quite a number of them springing from the main stem, quite small at the point of attachment, gradually swelling and curving until they start upward when they resemble in every respect, even in size, the main stem. They often present the appearance of immense candlesticks which we see in scriptural pictures. The plant is quite small at the root & gradually swelling out until about 1/3 of the way when they again diminish to the top which is rounded, being the focus of the ribs which run straight up the stalks.

The whole plant is covered with strong sharp spines growing in bunches along the edge of the ridges upon the outside - I know nothing of its flower or fruit, except that

the latter is used as food by the Indians - The other
cactus is called "Wislenius" after Dr W. who first
described and found it upon the Gila. It grows only
about 3 or 4 feet high and the spines are flat
and crooked. The plant marked *Tocareia* [sic]
grows from 6 to 20 ft high - It springs up from
the root in a number of straight rods without
limbs but covered with sharp spines - It is said to
have a pretty flower - The smootharked *Acacia*

(which is not an *Acacia* at all) is quite interesting in
appearance growing in a bush from 5 to 20 ft high

The bark is perfectly smooth & is a bright emerald
green - It is really a nurse and protector to the young
cactaceae which on account of the dryness and
rocky character of the soil spring up in the shade
and decomposed limbs & leaves about the root of the
"*Acacia*"; but when the ungrateful youngster grows up
strong enough to take care of itself, it kills its maternal
protector, by greedily absorbing all the nourishment from
the roots or by some other unknown cause

The "*Yucca*" is an interesting plant growing 40 to
50 ft high. All these plants grow in a granitic
and drift formation but exceedingly dry and barren

spring from crevices in the rocks & any place where
a hole can be obtained for the roots "

So far in Tedballian words - For myself I
now say I hope that these plants may be interesting
to you even if you do not succeed in making them
grow, but if you do succeed I shall be greatly
pleased to behold them flourishing under your auspices.

Yours with kind regard

J. W. Bailey

Prof. Asa Gray

Cambridge
Mass.

West Point N. Y. Feb. 7, 1836

My dear friend

Can you send some bits of plants which are noted for the silica in their cuticle. Sir David Brewster some 20 years ago published a statement that the silica in Equisetaceae ^{and some other plants} was doubly-refractive, and polarised light beautifully - This has been copied over and over again, and in Cuscuta or the Microscopu directions are given for preparing Equisetum hyemale for examination by polarised light - Some recent experiments which I have made on the cuticle of Equisetum leave not a shadow of doubt that Brewster was wrong - The silica in Equisetum and in the common rattan does not affect polarised light in the slightest degree - The error has arisen from portions of the carbonaceous tissues being left in that was supposed to be pure silica - A new process I have invented for removing the carbon, takes out every trace of it, and polarising specimens ^{of Equisetum} put up in London, were found by this process to retain a large portion of the carbonaceous tissues, ~~after~~ after the removal of which, the silica retained the form as before

and ~~being~~^{was} still as transparent as glass, ^{yet} showed no
action ~~and~~ polarized light.

I wish to pursue this investigation so as to confirm or disprove
my present belief that such a thing as crystalline, or
doubly refractive silica does not exist in the vegetable
kingdom. If you can send me some bits of such things
I will mount some of the results for you, and send
them by my son when he returns. I have already some
beautiful preparations of the Equisetum for you, showing
the stomata finely. Quekett mentions the palae
to tracts of Festuca pratensis as exhibiting a beautiful
arrangement of silica. I would like a bit of it, also of
any Cane, Bamboos, or other grass with hard cuticles.

Please send also a leaf of Dactylis. Pieces of the plant
an inch long will answer all my purposes and can
be sent in a letter.

If you happen to have seen any contradiction of Brewster's
statement please let me know.

My son Lewis is with me, amusing himself in
vacation with helping me ^{and his younger brother} to slide down hill, and
I am helping him in ^{the} study of Descriptive Geometry
which he voluntarily commenced as a pastime during

his vacation.

Don't let my requests interrupt your labours, but some
time when you are least busy send me a few fragments.

Yours ever cordially
J. W. Bailey

Prof. Asa Gray
Cambridge Mass

1817
West Point, N. Y. Feb 17, 1856

My dear friend

My son departs for Cambridge via Providence tomorrow, and I send him a slide of the non-polarizing silica of *Equisetum hiemale*. I have received the portions of grass &c you so kindly sent, but as they came to hand yesterday I have had no chance yet to work upon them - They look very promising. If I get good results you shall share.

I send also a tuber of some plant from Fort Jupiter Florida where it is used as a substitute for potatoe - Do you know what it is?

Dr Quekett gives in his third edition the same account of polarizing silica which appeared in his first I feel pretty sure that the error of Brewster and others is as yet unexposed.

Kind regards to you and Mrs Gray

Yours very cordially

J. W. Bailey

J.

P.S. I return to my son in friend Harris's letters, with many thanks.

Non Rose samples indicate - of course in Cal. The
fruit or grain is full "

"No 3 is a grass unknown to me - I can
find no figure of it - What is its name? "

West Point N. Y.

May 4. 1855

Dear Prof.

I look it for granted that you would
know I was thankful for the last specimens of
grasses you kindly sent - still I will thank you
for them now if it is not too late - You will see
in the last number of Illiman that I have despatched
Sir David Brewster's assertion about the polarizing of the silk
very briefly - but I am sure effectually.

There is a good friend of mine, a really excellent
man, Major Kendrick of the Army who has been stationed
in the Navaho country N. Mexico several years, and
who is much interested in the natural products of
that region - He sent me the enclosed fragments of
grasses, with the accompanying queries which I cannot
answer, but I presume you can - If not too much
trouble you would greatly oblige him and me by a
few words in reply to his questions - His attempt to
to introduce the Jerusalem Artichoke among the Navahos
as an esculent which would grow in spite of them, is
amusing, After paying largely for the transportation of
a lot of the artichokes ^{packed in sacks} from St Louis, he had the

the pleasure of finding when he received them that
they were — pickled!

Any news from that good fellow
Harvey?

(Yours truly
J. W. Bailey)

Courtesy Major Rendricks

"No 1 is what the Mexicans call "Sheep grama"
They are fond of it at all seasons — horses and cattle
do not eat it well save when being well-cured it
is fed in the absence of horse grama. The sheep
grama grows in most luxuriance in the southern
half of the Territory.

The Horse grama grows best in the southern half
It does not grow in the Navajo country — Horses
and cattle are very fond of it at all seasons. It is
I fancy the same that Cooke speaks of as being found
in Chihuahua etc. When it looks quite dry in the
winter, the interior is still green. This is the best
of all the Mexican grasses. The specimens I send are
so much broken as to be worthless — Engelman
(Dr. Emory) seems to differ from Griseb. (p. 113 L) Grama
is a word unknown in N. Mexico. Is the specimen
sent *Chondrosium Fensholtii*?

No 2 Very much resembles the wild oat of
California — It was hardly seen in the Navajo
country 4 years ago — It is rapidly spreading. Can
this be owing to birds driven from Cal.?"

Is it the wild oat? It has no more seed.

DEPARTMENT OF
HORTICULTURE AND LANDSCAPE
GARDENING,

Agricultural College, Mich.,

July 16 1885

All the Greeley Canices I have
rec'd are three specimens without
numbers from Dr Vasey. One is *C.*
rupestris All, one *C. ustulata* ^{Wingston} Wahl.,
and the third *C. vulgaris* var. *hy-*
perborea Boott. Yours &c
L. H. Bailey, Jr.

Dr. A. A. Gray,
Cambridge,
Mass.

NOTHING BUT THE ADDRESS CAN BE PLACED ON THIS SIDE



DEPARTMENT OF
HORTICULTURE AND LANDSCAPE
GARDENING,

Agricultural College, Mich., July 23 1888 -

My Dear Mr. Watson: I forgot to say in
my first report upon the Greeley Canices that of
one plant there were two specimens one of
which is *Carex rupestris* and the other *Kobresia*
scirpina. Your *C. misandra* may be the same as
my *C. ustulata*. My spec. is certainly nearer
Dorset's var. minor of *C. ustulata* than *C. fuligin-*
osa (*C. misandra* R. Br.) I imagine, however, that
the var. minor of *ustulata* + *C. fuliginosa* are insepar-
able.

Wm. L. H. B. Jr.



NOTHING BUT THE ADDRESS CAN BE PLACED ON THIS SIDE.



Henry Watson
Barne's Garden,
Cambridge, Mass.

* GRAND UNION HOTEL *

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OPPOSITE GRAND CENTRAL DEPOT.

Fourth (Park) Avenue, 41st and 42d Streets.

W. D. Garrison, Manager.

NEW YORK, Feb. 11, 1886

My Dear Mr. Watson:

I have another puzzle to lay before you. In Bot. Gaz. 14, Aug. I described *Carex Halliana* from a specimen of Hall's Oregon Coll. which was labelled *C. amplifolia*, evidently by a mistake. Last winter among Mr. Bennett's Canices at Providence I found the same plant labelled *C. Oregonensis*, Olney, in Olney's writing. *C. Oregonensis* was published without description in Proc. Am. Acad.

1872, p. 470, upon no. 608-57
Hall's Coll. During my visit
to Providence this week I over-
hauled all of Olney's Herb. I had
not seen it before. It contains
no *C. Oregonensis*. But it does
contain the ~~same~~ plant
labelled *C. Hallii* n. sp. Now
this explains a circumstance
in Herb. Gray: my *C. Halliana*
was there labelled *C. amphifolia*
and a specimen of *C. amphifolia*
was labelled *C. Hallii*. Olney evi-
dently made two names ^{*C. Hallii* + *C. Oregonensis*} for the
same plant. There is nothing
in Herb. Torrey to help me
out. Which name should
stand?

I found some Carices in
Herb. Olney which will explain one
or two doubtful ones in Herb.

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Fourth (Park) Avenue, 41st and 42d Streets.

W. D. Garrison, Manager.

NEW YORK, _____ 188

Gray, I think, and I therefore ask if you will send the specimens to me at your convenience and at my expense for examination. They are on one or two sheets in a separate cover near C. stricta. One is labelled C. litchensis or C. cryptocarpa, anthers long and immature dark spikes; coll. by A. Wood if I remember correctly. (Oregon)

Yours very truly,

Sept 15/186 - L. H. Bailey, Jr.

Michigan Agricultural College,

COLLEGE FACULTY.

Edwin Willits, M. A.,	President.
T. C. Abbot, LL. D.,	Prof. of Mental Science.
R. C. Kedzie, M. A., M. D.,	Chemistry.
A. J. Cook, M. S.,	Entomology.
W. J. Beal, M. S., Ph. D.,	Botany.
R. C. Carpenter, M. S., C. E.,	Mathematics.
Sam'l Johnson,	Agriculture.
E. J. Mac Ewan, M. A.,	English.
E. A. A. Grange, V. S.,	Veterinary.
J. A. Lockwood, Lt. U. S. A.,	Military Science.
L. H. Bailey, Jr., B. S.,	Horticulture.
Lewis McLouth, M. A., Ph. D.,	Mechanics.

HORTICULTURAL DEPARTMENT,

Agricultural College I. O.

Ingham Co., Mich. Mar. 8 1886.

My Dear Mr. Watson:

Thanks for your note on *Carex Oregonensis* and also for the specimens. The specimen from Blandegee, from S. W. Oregon, is evidently a large *Carex Hendersonii* Bailey MSS. (See this species in conn. with *C. laxiflora* in Herb.) I suppose that I shall retain the specimen.

I am now so very busy with my work that I may not be able to make a critical examination of the specimens you sent just at present. I secured the original specimens of *C. Schottii* in Herb. Bluey. They are not in Herb. Torrey! I also secured there *C. Barbarae*.

Yours very truly,
L. H. Bailey Jr.

Apr. 15 1886

6

Dear Mr. Watson: When I left the Junci with you I had no thought of paying any more attention to them, and of course whatever conclusion you reach is perfectly satisfactory to me.

The Carex which I had taken for *C. petricosa* is not that species. I thought that I had so thoroughly impressed the characters of all those little known species upon my mind last winter that I should not need to see them again, but somehow I half overlooked the *C. petricosa*. I will return it with the others in a day or two. Hope that you have not needed them.

Mrs. Bailey wishes to be remembered,

Yours Truly,
L. H. Bailey, Jr.

Agricultural College, Mich., May 14 1886

(7)

My Dear Mr. Watson:

I wish your advice upon a knotty point in *Carex* nomenclature.

Some time ago I reduced *C. aristata*, R. & B. to *C. trichocarpa* var. *aristata*, a reduction ~~in~~ which I am daily more positive is a correct one. The reduction creates a disturbance. It allows *C. aristata*, Dew. Silb. Journ. vii. 277 to take the place of our familiar *C. Davisii* Schw. & Torr. Mon. 326.

Doing away with *C. Davisii*, Schw. & Torr. allows *C. Davisii*, Dew. Silb. Journ. x. 279 to take the place of our familiar *C. Emmonsii*, Dew. in Torr. Mon. 411.

Would you advise me to make these changes?

Yours very truly,
L. H. Bailey Jr.

May 20 1886

My Dear Mr. Watson:

Thanks for your note on *C. c.*
aristata and *Daviesii* Dew. It is my recollection that
Dewey described the plants as new species under
these names. My notes surely say so.

I will be obliged to you if you
will insert on p. 246 of my M.S. the page
and plate of Hook. *Fed. Bor.-Am.* on which *C.*
Douglasii is described.

I send by express to you to-day the
M.S. for my *Carex* Synopsis. I am anxious to
get it into type as soon as I can. Of course
I must read the proof. As this Synopsis endeavor
s to account for all names which have been given
to American *Carexes*, I must insist that an in-
dex accompany my contribution. I will submit
it with the corrected proof.

Please accept Thanks for the aid
you have rendered in securing the publication of my
M.S.

Yours very truly,

Dr Gray has the first 31 pp. of my M.S.

L. H. Bailey, Jr

Am. Journ. Sci. XI, 161

May 28 1886

My Dear Mr. Watson:

Yours concerning the corrections on my MS. is at hand. I consulted with Dr. Gray concerning it, and I thought that it is about right; however, your experience is worth more than mine and I am perfectly willing to leave the whole matter to you. Will there be enough letters to designate all the groups?

I wish to make as few changes as possible in proof, as I understand that all corrections over a slight margin are charged to me.

I have no objection to the phrase, "contributions from the Herbarium of Harvard University", if you think the article is worthy such designation.

Thanking you for the interest you take in the contribution, I remain,

Yours very truly,
L. H. Bailey Jr.

Michigan Agricultural College,

COLLEGE FACULTY.

Edwin Willits, M. A.,	President.
T. C. Abbot, LL. D.,	Prof. of Mental Science.
R. C. Kedzie, M. A., M. D.,	Chemistry.
A. J. Cook, M. S.,	Entomology.
W. J. Beal, M. S., Ph. D.,	Botany.
R. C. Carpenter, M. S., C. E.,	Mathematics.
Sam'l Johnson,	Agriculture.
E. J. Mac Ewan, M. A.,	English.
E. A. A. Grange, V. S.,	Veterinary.
J. A. Lockwood, Lt. U. S. A.,	Military Science.
L. H. Bailey, Jr., B. S.,	Horticulture.
Lewis McLouth, M. A., Ph. D.,	Mechanics.

HORTICULTURAL DEPARTMENT,

Agricultural College I. Q.

Ingham Co. Mich. July 1 1886.

Dear Dr. Gray:

I send to Mr. Watson a small bundle of plants. Please give to Mr. Deane those which are marked for him, and also give to him any from the other package which you do not want. The package contains root-stocks of *Phragmites*, which I promised to send you. The *Lonicera glauca*, which is common here, appears odd. Along the Mich. Lake shore I find it entirely smooth and the lvs. very glaucous beneath.

I send various forms of *Phlox divaricata*. These forms are all common and grow side by side. Some of them I can scarcely distinguish from *P. pilosa*, which, however, does not occur here. I send *Prunus Americana* entirely staminate, — the whole tree.

The different-colored stamens of the *Thalictrum*s are very conspicuous in our low lands.

I am going with the botanical party of the geological survey of Minnesota on a collecting

trip in the vicinity of Vermillion Lake, N.
Minnesota, about 30 miles from the British
boundary. The country is entirely unexplored. I
shall be out about three weeks. Is there anything
in particular I shall look for for you? I
start July 10. Mrs. Bailey will go as far as
Minneapolis with me.

Yours with regard,

L. H. Bailey, Jr.

Is type being set on my Ceres notes yet?

Michigan Agricultural College,

COLLEGE FACULTY:

Edwin Willits, M. A., - President.
T. C. Abbot, LL. D., - Prof. of Mental Science.
R. C. Kedzie, M. A., M. D., " Chemistry.
A. J. Cook, M. S., - " Entomology.
W. J. Beal, M. S., Ph. D., - " Botany.
R. C. Carpenter, M. S., C. E., " Mathematics.
Sam'l Johnson, M. S., - " Agriculture.
E. J. MacEwan, M. A., - " English.
E. A. A. Grange, V. S., - " Veterinary.
L. H. Bailey, M. S., - " Horticulture.
W. F. Durand, U. S. N. A., " Mechanics.
W. L. Simpson, Lt. U. S. A., " Military Science.
H. G. Reynolds, M. S., Secretary.

HORTICULTURAL DEPARTMENT.

Agricultural College, P. O.,

Ingham Co., Mich., Apr. 19 1888

My Dear Mr. Watson:

I have in my possession a valuable and handsome paper on American Grapes by Professor Munson. He says that you wish to see it. I shall make an abstract of it for my own use, and then send it to you - in two or three weeks. Or if you need it sooner, will try to make my abstract at once.

I have accepted the new chair of horticulture at Cornell.

Yours truly,
F. H. Bailey

12

CORNELL UNIVERSITY EXPERIMENT STATION,
ITHACA, N. Y.

I. P. ROBERTS,
DIRECTOR.

H. H. WING,
DEPUTY DIRECTOR AND SEC'Y.

E. L. WILLIAMS,
TREASURER.

Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Agricultural College, Mich., June 9, 1888.

My Dear Mr. Watson:

Returning from an absence find yours of June 1st.

I will attempt the revision of Carey for the much needed new Manual. I doubt, however, if I shall be able to get the copy into your hands by Jan. 1st, as I do not expect to return from Europe until well into December. I cannot complete the article before I go, for a part of my mission abroad is to see the originals of our older species. Hope to see the herbaria of Wahlenberg, Schkuhr, Willdenow, Steudel, Boott, and others, and I shall be surprised if some of the American species do not prove to have been misunderstood. Boott did not see all these originals. I shall not get settled at Ithaca until about Jan. 15th. I shall hope to get the

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TREASURER.

Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

188

Copy ready by the middle of January if that will do. My collection of Carex is growing very rapidly, the American species being represented by between 3000 and 4000 mounted specimens.

Before I sail for Europe I shall want to ask you for introductions to two or three individuals.

The family is well, and Mrs. Bailey wishes to be remembered.

Yours truly,
L. H. Bailey

Michigan Agricultural College,

COLLEGE FACULTY:

DEPARTMENT OF HORTICULTURE AND LANDSCAPE GARDENING.

Edwin Willits, M. A., - President.
T. C. Abbot, LL. D., - Prof. of Mental Science.
R. C. Kedzie, M. A., M. D., " Chemistry.
A. J. Cook, M. S., - " Entomology.
W. J. Beal, M. S., Ph. D., " Botany.
R. C. Carpenter, M. S., O. E., " Mathematics.
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E. J. Mac Ewan, M. A., - " English.
E. A. A. Grange, V. S., - " Veterinary Science.
J. A. Lockwood, Lt. U. S. A., " Military Science.
L. H. Bailey, Jr., M. S., - " Horticulture.
Lewis McLouth, M. A., Ph. D., " Mechanics.

Agricultural College. I. O.

Ingham Co., Mich. July 4 1888

My Dear Mr. Watson:

I take the liberty to send you by express, prepaid, a small parcel of plants for examination. Dr. Beal, C. F. Wheeler, and myself have made a botanizing trip across Michigan in the jack pine plains region, and the few things I send are mostly from this collection. I want your opinion upon the violet (no. 29), the *amelanchier alnifolia* and the roses; also upon the plant from Lansing which I call *Stellaria graminea* L.! The violet I am entirely unable to place. It may be a form of *B. canina*, although it is very different from *B. canina* var. *Muhl-bergii*, a specimen of which from the same region I send for comparison. This violet, 29, grows in the driest and hottest sand over a considerable territory. Fls. deep blue and handsome. I send the *Ceanothus* in order

Michigan Agricultural College,

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L. H. Bailey, Jr., M. S., - Horticulture.
Lewis McLouth, M. A., Ph. D., - Mechanics.

DEPARTMENT OF HORTICULTURE AND LANDSCAPE GARDENING.

Agricultural College, I. O.

Ingham Co., Mich., 1888

2

to call your attention to the disagreement between the specimens and Manual description of leaves. This *Ceanothus* is very abundant on the plains, and holds the leaf characters constantly. I send also three *Vacciniums* - *Pennsylvanicum*, *vacillans*, *Canadense* - to show you that Dr. Gray's remarks concerning periods of ripening of fruit are true and that these periods are good specific characters. These three species grow intermingled ^{over} thousands of acres of sandy plains, and everywhere they ripen in the order above named so far as I can learn. The three specimens, collected at random on the same day, are instructive in this regard. The species do not appear to run together. *V. vacillans* is distinguished at a glance by its pale, glaucous-green leaves.

Later I will send you a description of the jack pine (*P. Banksiana*) as it grows over thousands of square miles in Upper Mich. The Manual description is misleading. Yours sincerely,
L. H. Bailey
With your package is one for Mr. Deane.

U. S. Exchange,
9 Strand,
London.
Sept. 19, 1888.

16

Dear Mr. Watson:

I am not getting well to work at Kew, and I am finding many of the originals of carices which I have long needed to see. I shall want to publish some of my notes as soon as I return, especially as I hope to visit the important herbaria on the continent. These notes will be too long for Bot. Gaz. and of such a nature as to unfit them for it. I should like to publish them in the Amer. Academy, if a second publication is not taking too many liberties for a stranger. The notes should be published before the new Manual comes out.

Professor Oliver is placing everything at my disposal. I am also making the acquaintance of C. B. Clarke, who is preparing Cyperaceae for de Candolle.

Yours sincerely,
T. H. Bailey



Stockholm Sweden,
18 Oct., 1888.

Dear Mr. Watson:

I am just in receipt of a note from Dr. Beal giving your determinations of some of our plants from the pine barrens of Michigan. I am particularly interested in the little violet, because it appears to be a very distinct variety, at least. It is confined to the sands, and occurs over many miles of territory, — across the State, in fact — and appears always to hold its characters. If you think it worthy a variety name, please call it *Wheeleri*, for Mr. Wheeler first collected it, and he deserves to be remembered in our

State flora.

I am aware of the interest attaching to our roses, and I have thought to make a systematic study of them at Cornell by growing them. Being ornamental, they come strictly within the limits of horticultural work.

I have been to Upsala to see Wahlenberg's carices, and am disappointed not to find his American species. Some of these species have made much trouble and no one, I think, has studied the specimens. They are said to be somewhere in Stockholm, and I shall look them up. I hope to see the originals of all American carices before I prepare the genus for the Manual. On my way south I shall spend a few days at Copenhagen, and shall see the plants of

Drejer, Liebmann, and Lange. At Berlin I shall see Willdenow's, Baeckelevs, Scheele's, and others; at Halle, Schenk's; at Prague, Presl's; at Paris, Michaux's, Lamarck's, and Steudel's. I have already seen the carices of Robt. Brown — one of which is a *Kobresia*! — Rudge, Gay, Drummond, Goode-nough, and others, and of course I saw Booth's and Carey's.

As soon as I return to America, I expect to examine those of Muhlenberg, Schumacher, and Dewey. Some of Dewey's later species are not yet disposed of. I hope, also, to see Elliott's, but do not know where they are.

Yours truly,
L. H. Bailey

Berlin, Nov. 1, 1888.

My Dear Mr. Watson: I am expecting some plants to be sent to me at Cambridge. If any should come please set them aside until I come. All our old Carex puzzles are clearing up nicely. The *C. refracta* of Schk. and Willd! about which so much fuss has been made for almost a century and which has been without a country, is a plant which has but comparatively recently been described from the alps of Piedmont! And *C. juncea* of Willd., said to have come from America, is not an American plant at all!

I am seeing much that I came to see, and am therefore enjoying myself. Hope you are well.

Yours &c L. H. Bailey

Deutschland. — Allemagne.

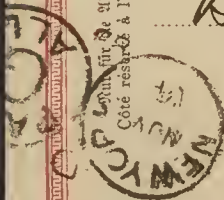
Postkarte. — Carte postale.

Westpostverein. — Union postale universelle.



Mr. Iereno Watson,
 Botanic Gardens,
 Cambridge, Mass.
 United States, Amerika

Postkarte für die Adresse.
 Côté réservé à l'adresse.



or expect to see, all the types which Drs. Forrey, Gray, and Scott did not see, except those at St. Petersburg, and there is little need of seeing those.

My trip is proving pleasant and profitable. I go today to Halle, thence to Mecklenburg and Tharandt and Prague, and thence south to Turin.

Yours sincerely,
L. H. Bailey

Berlin, Nov. 5 [1888]

My Dear Mr. Watson: Your letter concerning the publication of my tares notes is at hand. I hope that you have not taken upon yourself any trouble in connection with it, for I can make some shift for its publication when I return. But if I prepare the genus for the Manual this paper must be published soon. I cannot condense to less than 25 pages. I do not think, as nearly 100 species will come under review in one way or another. If Dr. Goodale could use it in the Jan. and Feb. numbers without

interference with his plans,
I should certainly be under
great obligations to him.
But if he has other matter
in anticipation, as I do
not doubt he has, he must
not change his plans in
the least. I can make
some arrangement else-
where. The paper will be
much more valuable than
my Synopsis. I am con-
fident that the future
difficulties in North Ameri-
can Carices will be those
concerned with the merits
of species and varieties, for
we shall now have ac-
counted for all the names
which have been applied
to our species. I have seen

19

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E. L. WILLIAMS,
TREASURER.

Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y., Jan. 15-1889

My Dear Mr. Watson:

The first of February is almost here, and I find that I shall be unable to have my correspondence done, on time. A dozen lectures in various parts of the State are taking me away from home. I have been waiting, however, to see Dewey's carices. I have now succeeded in securing them, so that I can go on with my work.

Yours truly,
L. H. Bailey

20

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Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y., Feb. 7 1889

My Dear Mr. Watson:

Please accept thanks for your interesting contribution no. xvi. There are many interesting plants in it. Let me repeat my request that if at any time you receive seeds of plants which promise to become useful in culture, you will remember me with a few. Even such plants as *Physalis* and *Martynias* would be very acceptable.

To-day I finish my Caeppaper for the Torrey Memoirs. I am already hard at work on Caepp for the manual, and hope to see the end of it next week.

I shall return your cares in a day or two.

Yours Sincerely,
L. H. Bailey

21

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E. L. WILLIAMS,
TREASURER.

Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y., Feb. 19, 1889.

My Dear Mr. Watson:

I had supposed that the Express was paid upon the plants. I now enclose 75¢.

I am afraid that I am keeping you waiting for the Carey paper. I had expected to have it done long ago, but so many things are upon me that I am well-nigh overwhelmed. I am called to all parts of the State on institute duties, and this week I have cancelled two important engagements in order to work upon the paper. I cannot get on rapidly and do the work as it should be done. I hope to get it all done this week.

Yours truly,
L. H. Bailey

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E. L. WILLIAMS,
TREASURER.

Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y. Feb. 26 1889

My Dear Mr. Watson:

At last the *Carex* article is done and it goes to you by express to-day. I hope that it may please you. I have made the characters just as few as I could, and yet clearly define the species. I have felt that I might as well draw no characters as to draw them so concisely as to be of no use. Many of the species of *Carex* in the last edition are much too briefly characterized, and as a consequence I scarcely ever get properly named specimens in some of the groups. *C. laxiflora*, *C. straminea*, and the *Acutae*, are particularly deficient, and I have therefore drawn the characters at more length in these species. As near as I can judge, my MS. will not occupy much if any more space than is devoted to *Carex* in the last edition, although

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Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y., 188.....

I have described about 40 more plants, and have added an artificial key. I have described 216 plants for the Manual region. After my key was all made, a species new to our region came in from Indiana, and I was obliged to readjust my numbers, hence the ~~messiness~~ of my copy.

I wish to see proof of article, all at once. While I do not expect that any changes will be necessary, I wish nevertheless to compare my key with all the species again, in order to see that I make no erroneous references.

Yours truly,
L. H. Bailey.

24

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E. L. WILLIAMS,
TREASURER.

Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y., Feb. 27 1889

My Dear Mr. Watson:

I had meant to send you before this descriptions of what I consider two good unpublished varieties of plants of the Manual region. I do so now, with the wish that you insert them in the Manual or not, as your judgement may decide.

The caryx article was sent you yesterday.

Yours truly,
L. H. Bailey

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E. L. WILLIAMS,
TREASURER.

Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y., Mar. 4 1889

My Dear Mr. Watson:

I want some help on *Carex Nova-
Angliae* Schw. I had supposed this name
older than *C. deflexa* Hornem., but in
looking again over Drejer's little "Revisio
Critica Caricun borealium", I am left
in doubt as to the priority of the names,
and I have not the means of finding out
the truth in the matter. On p. 15, Drejer
credits Greenland with *C. deflexa* on
authority of "Hornemann I". Hornemann's
first part appeared in 1821, I believe
(Drejer, 7). On p. 55, however, he
cites "Hornem.! l.c. p. 938", and the last
reference to Hornemann is to his second
part, which appeared in 1837. Can you
find time to look the matter up for me?
My proofs are now hastening on in the
Torrey Memoirs, and I must make the
changes there if any are to be made.

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DEPUTY DIRECTOR AND SEC'Y.

E. L. WILLIAMS,
TREASURER.

*Bills payable quarterly ;
on the 15th of July, Octo-
ber, January, and April.*

HORTICULTURAL DEPARTMENT.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y.,

The key is good so far as it goes, and I can suggest no changes without making it more complete. It will serve a good purpose.

I am glad to know that the matter will make but 3 or 4 more pages than Carey occupies in the present Manual. The enumeration comprises some 30 or 40 more plants, I believe, than the old Manual.

We move into our new house this week.

Yours truly,
L. H. Bailey

28

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E. L. WILLIAMS,
TREASURER.

Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y., Mar. 11 1889

My Dear Mr. Watson:

The *Ceras. Kousae-Angliae* is at hand. I shall be obliged to make considerable changes in this species and one or two of its relationships, and should prefer to do it in the copy rather than in the proof. If you have time, will you not return my copy? I will pay express both ways. Hope the matter will go to press before other changes become necessary.

Yours truly,
L. H. Bailey

CORNELL UNIVERSITY EXPERIMENT STATION,

29

I. P. ROBERTS,
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E. L. WILLIAMS,
TREASURER.

Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y., March 16 1889

My Dear Mr. Watson:

The copy is at hand. You can have it at any time. Do you know if Loring, in his trip to Lake Superior, collected any on the Canadian side? One of his species of Carex was collected at "Pie river", a locality not on the maps. I don't know whether to insert it - or not.

Yours Truly,
L. H. Bailey

Ithaca, Mch. 29

My Dear Mr. Watson:

My mind is not clear as to the objection you raise to my key. I used letters only to designate more clearly the indentations of the key; not for purposes of consecutive reference as Wood does. I had supposed that my key embodied Dr. Gray's main idea. In two or three pages of key, I thought that letters would facilitate reference to the main divisions. My key is like that I prepared for Coulter's Manual, and I do not yet see my way clear to make so large a key on a better plan.

Yours truly,
L. H. Bailey

L. H. BAILEY.

Ithaca, N. Y.,

Apr. 3

1889.

My Dear Mr. Watson: I shall
adopt your suggestion, and
proceed at once to so remodel
my key as to make it lead
to groups only. The copy will
be ready for you whenever
you want it. L. H. Bailey



NOTHING BUT THE ADDRESS TO BE ON THIS SIDE.

APR 3
6 PM
N.Y.

Mr. Serena Watson,
Potanic Gardens,
Cambridge, Mass.

CORNELL UNIVERSITY EXPERIMENT STATION.

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ber, January, and April.

HORTICULTURAL DEPARTMENT.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y., Aug. 24, 1889.

My Dear Mr. Watson:

I have yours of the 22nd inst. I expected that you would change my copy to conform to the rest of the Manual.

I inserted *C. distans* because it has been found two or three times, and because it is a plant which is likely to stick. Two or three other ballast-carries I omitted. I do not know if *C. flava* var. *Oederi* is a ballast-plant. I simply had it from Martindale, without explanation. But it is exceedingly common in Europe, and is no doubt well established in various places in this country; yet I have definite information concerning only the one locality.

I have used *Vigneae* and *Phyllostachys* as I have found them. If you make the latter plural, you conform it with

The group Phyllostachyae (cf. *Carex* Synop-
sis, 128). Phyllostachys Carey gave to a
more important group, and I have
made it a sectional name, as you see.

I know that the key is an elephant;
so is the genus. I cut it down about
a third. I do not see how it can be
made any shorter and be of any service.
It will be unfortunate to omit it; the
genus is so large and difficult. "A skeleton
of the 40 groups", which you desire, is
furnished in the Synopsis of Groups.

Yours sincerely,
L. H. Bailey

Would it not be a good thing to refer in
the text, in the proper places, to the tables?

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ber, January, and April.*

HORTICULTURAL DEPARTMENT.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y.,

Sept. 23, 1889.

My Dear Mr. Watson:

I have read the proofs care-
fully, and return them with this. The
chief corrections which I find necessary
are changes in a few numbers of
groups and species which escaped you
in the revision of my copy. There is
only one thing in your changes that I
do not like, and that is the running-
in of so many varieties with the
species, using caps. for their names.
I was very careful to separate in para-
graphs only such varieties as I thought
of sufficient importance to be taken in
their extreme forms for good species.
This I did, of course, without reference
to the mere accident of whether or no
they had once been described as species.

If the matter is printed in its present form, it will present some queer inconsistencies. *C. gnisea* var. (?) *rigida*, so marked as to make it doubtful if it belongs to *C. gnisea*, is recorded as a mere incidental form, with the interrogative point retained. You have indicated in proof that *C. tricoloides* var. *Rebii* and *cristata* should be paragraphed, yet the most marked and distinct of the varieties of this species is var. *reducta*. If any varieties are paragraphed, certainly the following should be: *C. milanis* var. *major*, *C. lunda* var. *flaccida*, *C. hystericina* var. *Dudleyi*, *C. trichocarpa* var. *Deweyi*, *C. gnisea* var. (?) *rigida*, *C. gravida* var. *laxifolia*, *C. cephalophloeoides* var. *sparsispicata*, *C. canescens* var. *ora* var. *angustifolia*, *C. vulgaris* (and the others, as you have indicated), *C. aetata* var. *Faxonii*, *C. rosea* var. *Texensis*, and the vars. of *C. deflexa*.

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TREASURER.

Horticultural Department.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Utica, N. Y., 188.....

It is evident that Hornemann's name is the older, in spite of Drejer's second reference, inasmuch as the page to which Drejer refers - 938 - is that of Hornemann's first part. If Hornemann's name is the older, will you please despatch me your cover of C. Novae-Angliae, as I believe the Greenland plant is in your collection? Schweinitz's name dates from 1825.

Yours truly,
L. H. Bailey

7-11-11

THE AMERICAN GARDEN.

ESTABLISHED 1872.
UNITED THE FLORAL CABINET, 1887.
UNITED THE GARDENER'S MONTHLY } 1888.
AND HORTICULTURIST.



GARDEN PUBLISHING COMPANY, LIMITED,

INCORPORATED 1889.

DIRECTORS { LAWSON VALENTINE, PRESIDENT.
CHARLES BARNARD, VICE PRESIDENT.
L. H. BAILEY,
JOHN DEWOLF, SECRETARY.
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10 SPRUCE STREET, NEW YORK.

OFFICE OF EDITOR OF ANNALS OF HORTICULTURE AND HORTICULTURIST'S RULE-BOOK.

ITHACA, N. Y.,

Feb. 4, 1890

My dear Mr. Watson:

The Manual is here, and
You will accept my thanks, both
for the Manual and for your thought-
fulness in sending me an unbound
copy. I like to have it nicely bound.
I like the looks of it. It has all the
good features of the last edition and
many additional ones.

My odd moments for the next
few weeks will be spent in getting
the run of the new names.

Yours truly,
L. H. Bailey



213
Feb. 18, 1890

My Dear Mr. Watson:

I want to know the date of Fries' *Manthissa* iii. On p. 153- *Carex vulgaris* is described; will you please see if the species originates there?

I am liking the new manual better every day.

Yours truly,
L. H. Bailey



ITHACA, N. Y., Feb. 24, 1890.

My Dear Mr. Watson:

I am greatly obliged to
You for your explicit notes on
Carex vulgaris. Arthur Bennett
called attention to the fact that *C.*
Goodenovi is older than *C. vulgaris*
in a late number of Journal of
Botany, and he appears to be
right. But if the species is to
be remixed, *C. rigida* of Gooden-
ough must be used for the
species, and all other forms made
varieties of it. Dr. Booth should
have done this when he combined
the various species.
Yours truly, L. H. Bailey

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TIMES BUILDING, NEW YORK.

211
The American Garden.

L. H. BAILEY, Editor.

RURAL NEW-YORKER.

THE AMERICAN GARDEN.

OUT-DOOR BOOKS.

Ithaca, N. Y., June 2 1890

My Dear Mr. Watson:

The Aug. issue of the American Garden is to be a cactus issue. I enclose two pictures, with a letter concerning them. Should you think that the determinations are correct? Please return as soon as possible, for I am to have engravings made.

We should be glad to have any notes from you for publication, and shall, of course, pay you for them.

Yours truly
L. H. Bailey

THE RURAL PUBLISHING COMPANY.

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TIMES BUILDING, NEW YORK.

The American Garden.

L. H. BAILEY, Editor.

RURAL NEW-YORKER.

THE AMERICAN GARDEN.

OUT-DOOR BOOKS.

Ithaca, N. Y., June 19

1890

My dear Sir:

The Carex is at hand in good condition. Much obliged.

The other is Carex chardorhiza. I have never heard of it in Maine before.

Yours truly

L. H. Bailey

102 THE RURAL PUBLISHING COMPANY.

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The American Garden.

L. H. BAILEY, Editor.

RURAL NEW-YORKER.

THE AMERICAN GARDEN.

OUT-DOOR BOOKS.

Ithaca, N. Y., July 5- 1890

My dear Sir:

Your plant is at hand, and altho' I have given it a fair examination I cannot express a positive opinion upon it until I have given it close study. I certainly never saw anything just like it before, and it has all the looks of a hybrid. I will let you know my mature opinion later.

Yours - L. H. Bailey

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RURAL NEW-YORKER.

THE AMERICAN GARDEN.

OUT-DOOR BOOKS.

The American Garden.

L. H. BAILEY, Editor.

Ithaca, N. Y., July 5 1890

My dear Mr. Watson:

I have not Satchell's caricatures, although I have tried for years to get them. I shall be glad to get your duplicate set and to pay whatever it is worth.

Yours truly

L. H. Bailey

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The American Garden.

L. H. BAILEY, Editor.

RURAL NEW-YORKER.

THE AMERICAN GARDEN.

OUT-DOOR BOOKS.

Ithaca, N. Y., July 14 1890

My Dear Mr. Watson;
The Caries are, hard and I am
delighted to get them. Enclosed find
draft for \$10.00
I had planned to spend 3 or 4 days
at Cambridge about the middle of
Aug. to look up the botany of some culti-
vated plants. Will you be there then, or
will the herbarium be open?
Yours Truly L. H. Bailey

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RURAL NEW-YORKER.

THE AMERICAN GARDEN.

OUT-DOOR BOOKS.

The American Garden.

L. H. BAILEY, Editor.

Ithaca, N. Y., July 28 .. 1890

Dear Sir: I have just been looking at your Cares again, and I can call it nothing else than a hybrid between C. aquatilis and striata. But you say that it is common, and that is an unusual character for a hybrid.

Yours truly
J. H. Bailey

THE RURAL PUBLISHING COMPANY.

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The American Garden.

L. H. BAILEY, Editor.

RURAL NEW-YORKER.

THE AMERICAN GARDEN.

OUT-DOOR BOOKS.

Ithaca, N. Y., Aug. 6

1890

Dear Sir: I shall be glad to name you Caricee
at any time. I am going away in about
10 days for 2 or 3 weeks.

Of your collections, I should like
whatever you can spare of the following:

bullets,	deflexa v. Deanei
Pseudo-Cyperus	Chondorhiza
stricta v. angustata	
flave v. graminis	

No, it makes ^{no} difference, I suppose,
whether you say *stricta* & *aquatilis* or
aquatilis & *stricta*. But as it has the
Habit of *C. aquatilis*, I like to put
that first.

Yours —

L. H. Bailey

1. *C. bromoides* Schk
2. *C. lurida* Walt.
3. *C. echinata*, approach-
ing *v. cephalantha*
4. Looks like a depauper-
ate Sprig of *C. monile*.
5. *C. echinata v. microstachys*
6. *C. canescens v. polystachya*
7. *C. echinata v. angustata*
8. *C. straminea v. brevior*
9. *C. straminea*
10. *C. scoparia*
11. *C. straminea*
12. *C. straminea*, nearly var.
mirabilis
14. *C. straminea v. alata*
15. " " *v. mirabilis*
16. *C. canescens v. vulgaris*

17- 16

18. *C. straminea*

19. *C. tribuloides*; much like var.
reducta

20. *C. scoparia*

21. *C. tribuloides* v. *tubata*

22. *C. straminea* v. *brevior*

23. *C. Magellanica* Lam.

(nothing peculiar about it)

24. *C. uticulata*

Y
Gen "*C. bullata*" is

C. monile

L. H. BAILEY,

Ithaca, N. Y.

AUG 16 1890

THE AMERICAN GARDEN.

Much obliged

Ithaca, N. Y.,

Sept. 22

1890

My Dear Sir:

The *Carex deflexa* v. *Seaneii*
did not live, owing to my own
neglect. If you visit the place
again, can you not get me another
root? I should also like a
root of the hybrid.

Yours - L. H. Bailey



NOTHING BUT THE ADDRESS TO BE ON THIS SIDE.

M. L. Fernald,
Orono, Maine.



209

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HORTICULTURAL DEPARTMENT.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y.,

Sept. 29, 1890

My Dear Mr. Watson:

I have been giving some attention to our cultivated dewberry of late, and I am satisfied that it is specifically distinct from both *R. Canadensis* and

R. villosus. I think that I shall call it *R. hortensis*. You may recollect that we found a single specimen of it in your collection, in the *R. trivialis* cover. I wish that you would tell

me where that specimen is from, and also if you will express your opinion as to its relationship with *R. trivialis*. I have no good specimens of *R. trivialis*.

The *Lucretia* dewberry, the bearing variety cultivated, was picked up wild in W. Virginia.

Yours truly
L. H. Bailey

Ithaca, N. Y., Oct. 10 1890

My Dear Mr. Watson:

My MS. describing the dewberry
has already gone to the printer. I
a closer study of my material find
that the *Lucretia* is distinguished from
Rubus Canadensis easily by the square
bases of the leaflets (flts. triangular-ovate)
and by the finely and doubly serrate
leaflets. I doubt whether it is
specifically distinct from *R. Cana-*
densis, although it looks very
different. At any rate, I have
called it - only a var. of that species.
I find that the *Lucretia* is different
from all other dewberries in culti-
vation. Some of them are *R. Canadensis*.
Not having the characters in my mind
at the time, I cannot say if your
specimen is really the same as the
Lucretia:

I enclose a note for your new issue, and I shall probably want to insert another on Synonymy. I have a number of corrections of ranges, but perhaps it is not worth while to insert them.

As you are in doubt concerning the proper course concerning additions, you will pardon me for making a suggestion. I should like to see an

Addendum issued occasionally and put upon the market at a sufficient price to pay its cost. This would keep the Manual always up to date, or nearly so, and would improve its usefulness. If an

Addendum is simply bound in with the next issue and not sold separately, it will necessitate everyone buying a new Manual if they wish to be up to the times. And I should think that all changes in nomenclature which you accept should be promulgated in the addendum rather than in the text of the various issues. ^{Two other} carriers should now go in, and if you decide to make additions, I will write them up.

Yours truly L. H. Bailey

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HORTICULTURAL DEPARTMENT.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y., Oct. 27, 1890

My Dear Mr. Watson:

I have been absent in Delaware and Maryland and so have not been able to reply to your request. Enclosed find my additions. There are several important extensions of distribution, but they are probably not worth mentioning.

I am glad that the publishers are willing to publish addenda from time to time. They will greatly increase the value of the Manual.

Yours truly
L. H. Bailey

Ithaca, N. Y., Oct. 28 1890

My Dear Mr. Watson:

A Japanese Walnut is now grown in this country, and I am puzzled as to its species. By this mail I send you, in two parcels, a leaf and a nut.

The plant is called *Juglans Sieboldiana* by the nurserymen. Gardeners' Chronicle (Oct. 1888) refers that species (see note) to *J. Mandchourica*, but our plant is very different from their figure of *J. Mandchourica*. The nuts of *J. Mandchourica* are obtuse, and winged as in our pattern, while those of *J. Sieboldiana* are acuminate and wingless. And the leaves are unlike. See

Candolle's comparison (Prod. xvi. (2/138)) of the nuts of *J. Mandchourica* with

those of our buttercup, throws this culti-
vated species out of *J. Mandchouica*.
It is said that Siebold himself dis-
tributed this cult. species as *J. ailahti-*
folia.

I have not Maximowicz's description,
and no authentic specimens. I hope that
you can tell me soon what to call it.
The specimens I send are from Cali-
fornia.

Yours &
J. H. Bailey

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HORTICULTURAL DEPARTMENT.

L. H. BAILEY, PROFESSOR OF HORTICULTURE.

Ithaca, N. Y., Oct. 31, 1890

My Dear Mr. Watson;

I am glad that Field, Forest and Garden Botany is to be revised.

You certainly cannot expect to insert all garden plants, else you will make a book larger and more difficult than the Manual. I should try to insert only the common garden plants and favorites. If you attempt anything more you at once destroy the plan and essential feature of the handy little volume. The florists would not help you much. Their names would only confuse you.

In order to insert any worthy enumeration of them (florists' plants) would demand a study of the plants themselves, and this could not be done. I should dislike

to see the volume much extended in its plan. It should be brought down to date as the Manual has been, and I think that the authorities for the species should be added.

If I can be of any aid to you at any time, do not hesitate to call upon me.

I am greatly obliged for your notes upon the Juglans. Do you know if *J. ailantifolia* is the same as *J. Sieboldiana*, and which is the older name? It is said that Siebold distributed it from Leyden as *J. ailantifolia*. Yours truly,
L. H. Bailey

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TIMES BUILDING, NEW YORK.

The American Garden.

L. H. BAILEY, Editor.

Ithaca, N. Y., June 8 1897

My Dear Mr. Watson:

Would you be willing to loan
me your specimens of *Pyrus coro-*
naria and *P. angustifolia* for a
few days?

Yours truly
L. H. Bailey

Sent June 11/97

Ithaca, N. Y., June 23 1891

Dear Mr. Watson:

By express to-day, prepaid, I send you the pyruses. They have been of great service to me. I have made some changes in our pyruses which I hope botanists will find useful. At any rate, I hope that you will do me the favor to borrow my specimens when you write pyrus for the Syn. Fl.

I have a very large collection of native phums, and shall work them up this fall.

Much obliged for the use of the specimens. Yours truly
L. H. Bailey

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TIMES BUILDING, NEW YORK.

The American Garden.

L. H. BAILEY, Editor.

Itbaca, N. Y., June 29 1891

My Dear Mr. Watson:

I do not believe that the large
 Pyrus leaves belong with the flowering speci-
 men. I have leaves of that species, from
 vigorous shoots and they are very different
 from the ones on the sheet.

I am aware that our phum of-
 fera fine field for investigation, and I
 have been at them for over a year. I have

a very large collection. Many varieties
of various species are cultivated and
some 40 or 50 of them I am growing.
I shall soon visit one of the largest col-
lections in existence, in Maryland. I
shall publish upon them this fall.

Near the road, between the greenhouse
and the gardener's cottage, in your gardens,
is a small bush labelled *Prunus Texana*. I
should like very much to have a dried speci-
men from it and to know anything
about its history.

Yours truly,
J. H. Bailey

Ithaca, N. Y., Sept. 28 1891

Dear Sir: I do not know of any var.
strictior of *C. vulgaris*. I suppose you
refer to var. *strictior* of *C. stricta*. I am
not sure if it is worth distinction,
although I am in doubt about it.

Carex Porteri is an unimportant form of
C. crinita. (See *Carex Synopsis*, 90). See also

same reference for var. *angusta*.

Yours truly
L. H. Bailey

THE

Botanical Gazette.

EDITORS:

JOHN M. COULTER,

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CHARLES R. BARNES,

UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

PURDUE UNIVERSITY, LAFAYETTE, IND.

*Is Miss Clark still with you?
Please give her my warmest re-
gards if she is. Remember me
also to Fernald. F.F. & G. Coming
on — slowly — and with many notes
712 Langdon St., Madison, Wis.*

to be looked up when I can get back to C. — B.

November 9. 1891.

My dear Dr. Watson:--

The proof with its accompanying MS. came duly to hand.

I am sorry to have to disappoint you again in the matter of publication by not printing the notes which you send with the one of which I sent proof. When I send out galley proof to authors I correct it at the same time by MS. and return to printer, after which it is made up. By the time that I receive corrected proofs from authors the Gazette is paged, and I incorporate their corrections on the paged revise. You will readily see why I cannot add so much matter as you send. It would involve entire rearrangement of the bulk of the number. I know that this is not an ideal way to manage, but it is adopted to save time.

I see in a recent catalogue of Friedländer & Sohn that Hooker's Musci Exotici with uncolored plates is quoted at 36 marks. If this price is satisfactory to you for the copy I brought with me I wish you would make out a bill for the same against the Univ. of Wis. Will you also include in the bill a copy of L & J's Manual? I want to dispose of one copy that I have already ordered; and it is necessary to have it in proper form. If you will make out bill on your paper in the form enclosed and mail it to me I will see that the money for the Musci Exotici is forthcoming.

*Cordially yours,
C. R. Barnes*

191

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TIMES BUILDING, NEW YORK.

The American Garden.

L. H. BAILEY, Editor.

Ithaca, N. Y., Dec 10 1891

Dear Mr. Watson:

I intended to speak to you while at Cambridge concerning the letter you sent me containing a correspondent's criticism upon the description and systematic position of *Carex pedunculata* in the Manual, but it escaped me. Your correspondent was puzzled because all the spikes

were androgynous. I never saw
such a specimen of *C. peduncu-*
lata and I doubt if he had
it. I should like much to see
such a specimen of this species.

Yours truly

J. H. Bailey

Bailey

U. S. Geological Expl. 40th Parallel.

Carson City, Nevada, Dec. 15th/867.

Dear Doctor,

Now that I have settled down in winter quarters, I will give you an account of my summer's work. It was much interrupted by sickness - chiefly fever and ague from which nearly an whole party suffered. The pain is too recent - and my recollection of it too vivid - for me to speak much of it now. Luckily - my associate in this department - Mr Watson was well all the time - very energetic and industrious - and his herbarium probably contains twice the number which I have collected. I cannot speak in terms of too high praise of this gentleman - always genial and kind - and ever persevering. His botanical work was in addition to that of topography. He works early and late and seems never tired or suffled. For writing my report - which is a separate document from the above named gentleman's, I have divided the flora into sections which are in a measure natural - but partly arbitrary and adopted for convenience in reference. They are as follows.

1st - The plants found on river bottoms, and margins of

plants unknown to me - and a species of rose which is very frequent, and was in fruit when observed. The bright red berries of the Shepherdia and scarlet hips of the rose - contrast charmingly with the silvery leaves of the former plant. Among the smaller plants, a species of *monarda* is very common on the Yunque - *Nicotiana glauca* occurs - and an *artemisia* is frequent from the fibres of which the Putes make their bow-strings. Trees are not seen on the Humboldt as far as explored, unless - perhaps - the low willows may be so denominated. The Shepherdia is frequent. The meadow plants in the vicinity of either stream - are of much the most interest, including many species of grasses - canes - and juncos. The most showy flower of these meadows, is a large *Helianthus* (seeds of which I procured) which covers extensive fields - and in despite of its beauty - is a troublesome and widely spreading weed. The Indians use its seeds for food. At Glendale on the Yunque - there are extensive meadows in cultivation, which produce large amounts of hay - barley - and garden vegetables. The "timothy" grass has been introduced into these meadows to some extent. Where ever the *artemisia* attains a more than common height - and the fact is true of the whole country; where it appears most to flourish, the soil is said to be available for the production of crops - if properly irrigated. These rich meadows occur throughout the length of the Yunque, although

sloughs; the latter generally leading from a river or lake and serving for irrigation.

2^d Those found on the desert plains or valleys at a distance from water.

3^d Those of the mountains. These main divisions, I have again subdivided into, 1st A river section containing the *Seneca*, *potamogeton* &c, 2^d A marginal section immediately contiguous to the rivers and lakes, 3^d A meadow tract, moistened generally by artificial irrigation, or by streams descending from the higher ground, and more or less dry in the summer months, 4th A desert section proper - and 5th one more particularly appertaining to the alkali flats and vicinity of salt springs. 6th The flora of the mountains is divided naturally into two distinct sections, according as the plants grow in the cañons in the vicinity of water, or - 7th flourish on the higher and more exposed regions, where in the summer season they obtain very little moisture. These divisions as before stated, are, *circa* measure, arbitrary and shade into each other. The summer work began at Hunter's Station on the Truckee - and the examination was extended from that place to the Big Bend of the river; in the mountains about Camp 12 - situated at that place,

and from thence - up the valley of the Humboldt to Ooana. Leaving the latter place - a camp was established for sanitary reasons - in Wright's cañon in the West Humboldt Range - and afterwards during nearly two months stay at Carsonville - the opposite side of the same range was explored. Beginning with the flora of the river bottoms - it is quite evident that some of the plants immediately bordering the rivers and streams - have been drifted above with soil removed by erosion - the original habitat of some of those found on the Truckee - having probably been near the sources of the river at Lake Bigler. A species of *Yucca* - I regard as an instance of this - as it was always found amidst drift wood and debris - and on shoals and islands in the stream. Of course this cannot be accepted as a fact - without visiting the head of the stream and ascertaining whether the plant is common there. The species found along the Truckee at one camp, differed very rarely from those discovered at another, preserving the same general similarity as far as the Big Bend - the limit of research. The trees growing near this river - are chiefly cottonwoods and shrubby willows of various species. The mass of scrubber, is made up of *Shepherdia argentea*, various

Cactus is occasionally met with and various small and always peculiar herbs. The alkali flats I have had but little opportunity to study - as the meanness of water in such places - caused us to hasten out of such localities. I should judge from casual observation that there is but little vegetation in such districts. The mountain cañons where water occurs are rich in vegetation. This is especially so in the W. Humboldt range. The cañons in this range are frequent and the water of good quality and abundant. Aspens, willows, cornels, gooseberry, and "buffaloberry" compose the larger growth of the banks of streams. These shrubs often form a dense thicket. Beautiful flowers are also seen - as aquilegia, gilia (?) solidago and aster - while a clematis climbs over the bushes. I give a small sketch of the plant which I suppose is a gilia and inclose a specimen. It is a very showy flower. I noticed it early in June on the Sierra and it was still in bloom in Comanche in October. Mosses and hepaticas were found on rocks in the streams but can hardly be called common. I found at Creana in desert soil and afterwards in Buena Vista cañon near a mountain stream, a species apparently of *Epiphegus* - or nearly related to that genus.

which was probably parasitic although I failed to establish that fact. Mr. Watson thinks he has done so. It has a thick, juicy root - which the Putes stated, was much used by them as an article of food in the month of October. In the higher portions of Wrights and Buena Vista cañons - a species of elder was common - with broad cymes followed by purple berries. It looks exactly like the eastern *Sambucus Canadensis*. The high mountain plants included an *Epilobium*, a *Potentilla* found in the crevices of exposed alpine cliffs - a pretty *Lupinus* with silvery leaves - and a *Castilleja* which is very conspicuous. The *Epilobium* mentioned above is unlike any species I have met with - being very attenuated and delicate. The branches are numerous and form a tight spray and the flowers are small. It is very common. The alpine *Potentilla* was my especial favorite, always choosing the nooks and corners of the wildest cliffs where the air "was delicate" - although perhaps at times boisterous. These bold ridges were objects of real grandeur and showed singular marks of erosion. I took sketches of them all - and would send them were it not for making my letter unduly long. A very remarkable species of *Chrysosplenium* (?) occurred on the high

mountains above Unionville - tracing the appearance of a moss. It formed large trees, generally on rocks and had spreading-woody stems underlying the mass of leaves. The Juniper and "mountain mahogany" form quite extensive groves on the higher parts of the W. Humboldt range. These two trees afford the necessary fuel for supplying the mining towns. I found several species of eastern seeds at Unionville - and ranunculus, cymbaria occurred there - and near the Humboldt river. It did not appear to be entirely confined to saline soil. Notwithstanding that occasional tracts of land are fertile - there is much that it would be next to impossible to reclaim. Beastly water - and absence of fuel render some tracts still deserts - and yet these desolate regions with their barren mountains - have a weird beauty - and the varied colors on them, seen through the intervening mist - are lovely. The mountains are a never ending source of delight to me - and Star Peak is really grand. When well I have enjoyed myself very much - and like Mr King and most of the others. I am quite exercised now by reports that come to me through others - that Mr Gardner is very bitter towards me - considers me useless - and wishes to have me sent back. From the fresh he has treated me meanly - there is no other word for it - and while at times appearing kind to me personally - has spoken harshly of me behind my back. This is a new thing to me to be considered either "useless" - or unpleasant - and this persons treatment of others - makes me still more firm

manhood in some places by the near approach of the mountains to the river. They afford much finer hay than similar tracts on the Humboldt where species of salt grass abound. This latter species appears to contain but little nutriment and is generally avoided by stock. There is a "tule" on both these rivers - the roots of which the Indians use for food. The upper portion of the plant is also used as a thatch for houses. The desert plants have a general resemblance to each other - and I cannot say I love them. They are, as a rule, prickly - and with small leaves and more inconspicuous flowers. Their extreme fragility makes them very difficult to preserve. The Artemisia is the most respectable - of them all, and often has a very thrifty appearance. In moist localities, particularly near the Humboldt range - it is quite frequently five or six feet in height. The stem and roots are singularly twisted, spirally, like the strands of a rope and are much used for fuel - being employed even at the large smelting works in Ocala - where large quantities of it are consumed. It burns too quickly - but affords a strong heat - and is inexhaustible in quantity. The "grease wood" (?) is common - often in company with the Artemisia - but still surviving where that plant declines to be seen - as on the margins of alkali flats.

in my conviction that I am in no way culpable, unless
it may be in speaking my mind too freely when driven
to bay by petty persecution. A dyspeptic's temper is hardly
ever sweet and mine is no exception. There is no one
here to whom I can speak of these things - and heretofore
I have concealed all annoyances and even sufferings
from my brother. King and Gardner are friends, and
I can hardly speak to one about the other - although the
former is a gentleman - and alone would do me justice.

If I am unfit for the place, I wish to leave; not to
stay here from mere sufferance - and constantly un-
happy. Still, I greatly desire to see, at least the next
season out. - But not at the risk of underhanded stab
at my reputation. My work has been small - but my
illness has been long and weary - and one would sup-
pose that another who had borne the same disease,
could account satisfactorily and even kindly for
my small collection. These little troubles, weigh heav-
ily upon me - and to have one friend - I would willingly
let my ambition go. Please excuse me for boring
you with all this matter. I wish you to hear my side
of the question fairly and have therefore spoken

at so great length. My kindest regards to Mr Gray,
and any of the Forez family you may happen to see.

Your sincere friend
W. H. Bailey

Loapham Institute,
N. Scituate, R. I.
Aug' 12, 1877.

Dear Watson,

Many thanks for your
favor of yesterday. I was sure the thing
would prove to be an old acquaintance,
but I failed utterly in my recognition of
it. The flowers I am very familiar with,
but the fruit was quite out of my ken.

I am enjoying my work here very
much - and my class is doing finely.
It is a good collecting region, and I can
always secure illustrations for the class-
room. Boating, fishing, bathing, and
walking, fill up the measure of the
day. Regards to Dr Goodale and Wilson.

Yours truly
W. W. Bailey

~~Stichocoma~~ ~~Ann. Agr. 1875. - Presy, Minn. - Gray~~

~~Trichostema~~ ~~Blanda.~~

Phytolacca decandra - Garden, 12.22, 8.

Lilium capitata, Garden, 12.72, 77, 79

Urtica filamentosa, " "

Colorado Spruces - by Sept - Gard. Chron. 2. 6. 75
+ Garden 12.71 - from Am. Agric.

Eranda prostrata, Moq. Guillemin, Arch. Bot. 2. 54.

Calochortus luteus, Dougl. " 51

Gowningia pulchella, B.M. t. 625) (Belg. Hort. 1877, 159).

Morandella macrantha " 6250 (" " 162).

Salvia farinacea, Bth, Garden, 9. 431, t. (" 162).

Polemonium confertum, " 10, 506, t. (" 163).

Pentstemon diffusus, " 10. 80, t. (" 164).

Dodecatheon integrifolium " 10. 360, t. (" 166).

Leucothoe Davisii, B.M. t. 624) (" 167).

31 Market Square

Providence, Oct 5. 1878.

Geo E. Davenport Esqr-

Dear Sir; You are very welcome to the singular (or should I say plural?) *Botrychium* I sent. It should, however, be credited to my excellent friend Mr James L. Bennett who first found it, although I was in his company. I have another with two fertile fronds. Mr George Hunt, an indefatigable collector for forty years, has brought me a nice suite of *Botrychium* - all one species, from the Adirondacks. I am not sure of the species - and would like to send them to you for identification. They are curiously variable. Mr Hunt has made the addition of *Struthiopteris Germanica* to our flora this year from Smithfield. It was not in fruit. Mr Bennett who is engaged upon a

careful list of the plants of Rhode
Island, has kindly given me the
enclosed in answer to your request.

He and myself have been at work
all summer on the herbarium of the
late S. Y. Gray - temporarily stored at
Brown University pending litigation
in regard to the will. He died August
Gray, was he so when his codicil
was made creating Dr Gray and
Mr Canby trustees. Science is much
interested in the answer.

I am doubtful about Adiantum
curvestrum being established at Valley
Halls - although there is testimony to
that effect. and I have seen the
plant - and so has Bennett.

I shall welcome your proposed book
as a positive addition to our working
manuals.

Truly yours
W. W. Bailey

310 Benefit St., Providence
Oct 13, 1883,

My Dear Watson,

Upon looking over my pamph-
lets - I find that I have never received
Nos 15, 14, 13, of Dr Graig's Contributions
- although I thought I had them, This
is why I did not find the account of
Salsdopia and Howellia, plants that
were sent me by Howell, If the Doctor
has any or all of these numbers to
spare I should be delighted to possess
them, without specially looking at the
numbers I had taken it for granted I
had them all. My herbarium work
suffers - as I have 58 men to teach,
in divisions. There is work enough to
employ a special Curator all his
time "from dawn till dewy eve", but this
they cannot afford. Moreover, Olney
in trying to protect his collection a-
gainst fire, never thought of water, he
is compelled to keep the plants in
a fire-proof building; the only one we
have is the Laidley; the only room

Barley

available is underground, and although sealed and prepared with care, is extremely damp. The plants show the ravages of mould. It is, too, a dark, cozy hole to work in, and I am ashamed to write a notice to it in front of a line of open water closets, but the outcome is to be, I don't know but the President, enjoying silence on me concerning it - so these facts are for friendly ears alone. You can imagine my feelings at seeing this fine herbarium in imminent danger - and yet seeing no avenue of escape. The authorities would move it if they could - but are fearful of infringing upon the provisions of the will. Another misadventure is - that all my herb accounts, for paper, glue, pins etc - as well as all books, must pass through the hands of the Library Committee. I must say, however, they never act ugly in their grants.

Something too much of this. The little Whitman continues to annoy me and is a great source of fret to

me. I brought in the other day several bunches of maple with bright red leaves. These have been my top delight and I found them in their cradle tray, peering out from a mass of the foliage - a pretty little picture. Mrs Bailey sends her best regards.

Many thanks for the plants - I got one ~~as for an~~ Astragalus and there got lost. These Colorado plants have been a great delight to me. There were about eighty species - many of which I had never before seen.

How are my friends - the Shipes Parker these days? Please remember me to them. Remember me kindly to all at the Garden - If you ever have any excess of duplicates - will you kindly remember me? *

Yours as ever truly

W. W. Bailey

* If I remember rightly New sends its excess to other institutions. Is that so? My salary was raised this year to \$1250 - but is even now, in view of doctor's bills, rather meagre.

310 Benefit Street, Providence
October 18, 1883,

My Dear Watson,

I find I have not the following
of Dr Gray's papers

13. 361

12. 159

10. 312,

and will be glad to have them. The
Corporation have consulted the highest
legal advice - that of Chief Justice Du-
fee - and find that the Herbarium etc -
must be in a fire-proof building. Our
only such edifice is the Library - and the
only available room the one I mentioned,
which is in all ways unsuitable. I
have repeatedly called attention to the
immediate danger to the collection &
the risk to health where they are. I
~~see~~ no emergency. As I understand, the
President is very particular that the

thing should not be known, yet it is
sure to be sooner or later, Prof Pres-
ton of Cornell was here last au-
tumn and expressed his horror
to find the collection and the speci-
men in such a place, But I don't know
what can be done about it all,

A pile of drying papers, not in
my room - but near it in the basement,
actually decomposed this summer -
and I can now rub handfuls of fungi
off some of Albee's specimens, My lecture
room is in one building, the 'herb' in
another - and the books remote from
either place of work, I should be glad
if I was expected only to teach and
could wash my hands of this thank-
less office, or, however, which I should
love if in a fitting place,

Truly yours ever
Barlow

Providence, Feb 26, 1884,

Dear Watson,

I am greatly troubled
over the condition of *Alcea* plants
- which are now in a safe and
very comfortable place, but suffered
great injury before removal. May I
ask your advice?

Would you - in case plants are
badly affected with black mould &
papers half rotten with it, endeavor
to retain the specimen - or destroy it
out of hand? In my personal herb
I should make short work of it. Some
of the plants so injured are for
Western, perhaps hard to duplicate;
many I can restore at once from my own
collections but not by some collectors.
Is it safe to let my discretion guide
me - and purposely exclude worm-eaten
and mouldered specimens? The rooms
I am now in are warm, sunny and
pleasant. The Lvs, however, are in
another building - a long way off.
No hope of a change. Truly, your ever
W. W. Bailey

No 6 Cushing Street,
Providence, Sept 7th 1888,

My Dear Watson,

Will you, if it is in your power, kindly send me a copy of the list of Dr Graig's papers that appeared in the Am. Journal?

I have never been well since that day I saw you at Dr Graig's funeral. I caught cold in the horse-car, was cold in the Chapel; cold again on the car returning to Providence. I was suddenly seized with rheumatism, and confined to my bed three weeks. After that the disease took a chronic form as lumbago and a severe pain in the back of the neck, and a general weakness. I could barely walk through the term. College matters, too, distressed me much; my inefficient labors, and

the total indifference to the needs of my department. Really - I cannot teach and do what I ought by the herbarium. It is wholly out of the question. There is not enough there - you know what it is, to employ two men for five years - all day. The room, too, is small, and inadequate. Phew! I am disgusted with it all. But the toughest part of it is that I cannot live on my salary - and, in order to go away this summer, as directed by the Dr I had to draw on my principal. This, with a family to bring up, and nothing to leave them, is sad enough! Is there any work you can direct in my direction?

I am just returned from a two months stay - alone, at West Point. I am better, but am advised to "draw it mild" for some time. If only I could see my way ahead as regards

business, I would wish the rest. My long illness has cut off many of my resources. If the worst comes to the worst, for what could I sell my herbarium? Is there any demand? It would be like pulling one's teeth to part with it - but even Mrs. W.'s "man alive" - and the sentiments must go.

All luck and happiness
Feynman! What can you tell me of the proposed change, and of the Lynde House, and of Hurler's volume?

Affly always
Your friend
W. W. Bailey

6 Cushing St,
Providence, Nov 4th
1888,

My Dear Watson,

If I should desire to
send a package of plants,
say to Ceylon, India, or Japan,
what is the best and least
expensive way of doing it? We
have crowns of duplicates and
I should like to make them
useful in exchange.

I suppose Bennett sent you
his catalogue of R. I. plants.

My wife and Lillian are well
- what is five and a half;
Margaret three, Time flies. So
far I have been able to do my
lecture work; beyond that - I
flatter out. Still, on the whole, I
am better than in the Spring.
My niece is with us for the winter.
Yours ever W. W. Bailey

No 6 Cushing Street,
Providence, Jan' 6th 1889.

My Dear Mrs Gray,

I have just had a charming letter from my old friend Miss Margaret Torrey. In it she mentions incidentally, the receipt from you of pictures of the dear old rooms of the Doctor, and of the memorial vase. Is it presuming too much on your good nature to ask for copies of these? I should value them so much.

I had a very pleasant visit lately from Mr Walter Deane whom I had only known hitherto by correspondence. He found me in the "hunting time o' the day", with my little ones around me, and sitting under the Elm tree. He appeared to have liked it.

I am battling with incessant attacks of acute neuralgia - and with rheumatism, but am on the whole better than last Spring. I spent the summer, without very sunny (it was thought best in my run-down state) at West Point. I could then barely walk two miles. Now I am able to do my work; so far a clear gain on the early Spring. Sincerely hope that the New Year finds you well. If the wishes of a thousand kindest friends can bring you peace and joy - these surely shall be yours!

Very truly & affly yours
W. Whitman Bailey

Dear Watson,

An artist friend, who
knows no Botany, in passing
through New Mexico, called there
at a station of ~~last~~ to my wife,
I think, and if so it is funny -
he "gouged" Bailey, without ever
having heard of it - and sent
it where it naturally should go, Am
I right?

Happy New Year to you
from

Your friend of 22 years!

W. W. Bailey

Providence, Jan 6, 1889 -

No 6 Cushing Street,

Providence, Feb 3^d, 1889,

My Dear Mrs Gray,

I am greatly obliged for the picture of the rose. I have framed and hung it in my room near that of Dr Gray. I have the medallion picture from "House & Garden" also framed.

In case you ever have the desire to look over Dr Gray's letters to Mr Olney please remember that I have them in charge and will gladly give you the opportunity. I have a few to myself that are very precious.

Please do not put yourself to any trouble for me about the other picture, Only - if you ever happen to have one - I should so like it!

My dear wife and babies are well,

Yours most truly
W. W. Bailey

No 6 Cushman St.,
Providence, Nov 28, 1889.

My Dear Watson,

Pray tell me what this Polyo-
maceae thing is - from Fort Supply,
Indian Territory, sent me by Col Bliss
24 Infantry? (in 1885), Don't bother to re-
turn; I have more. It rains today - as
did twenty-two years ago, at our
Thanksgiving at Glendale, Nevada.

My wife is in New York; my
children at their Grandfather's, where I
am to dine, and I am rectifying the
contents of my herbarium.

I have been in poor health for
two years - a settled and most
obstinate pain in the neck - but, on
the whole, am stronger than last year.
I am very busy. Our new President is
my personal friend, a big-hearted,
inspiring man. The last was no
body's friend; a most exasperating -
get-out-of-his-way-kind-of - every-day

Kind of man, I hope never to see
another like him. There is a general
hallelujah at his departure.

On Jan 29th I am to read a
paper before the Torrey Club on our
R. I. Flora. My notes grow apace
"Non Angles, sed Angeles" was it
the old Pope said, "To be apprecia-
ted they must be seen."
If Goodale is at home
remind me to him.

Thine -
W. W. Bailey

Butternut, N.Y.,
Warwick, R.I.
Aug 18, 1890,

Dear Watson,

The inclosed variety of
Plantago Patagonica is ex-
tremely common hereabouts, in
pastures, Call you it aristata?
I find my old locality for Lythrum
alatum - here, holds after five
years, but the plants are sparse,

Did I tell you that by my
advice - and by the earnest
soliciting of Pres. Andrews, Mr
Bennett is appointed Curator,
and I am left free to teach?
At the same time my salary
is raised from \$1350 to \$1600,
and Prof Bumpus comes as
assistant in Biology.

Besides - Dr. Andrews desires
to give us new and better

loom, to start hot-houses,
and boom our arboretum &
garden. He is a trump;
our last Prex was an im-
possible man, You can go to
Amiens with anything; he
is a white man.

Alas! with all this
my health is feebly, though
perhaps better than two years
ago. My wife and glorious
children, thank God, are well.
How is it with you, friend
of many days?

Thine ever

W. W. Bailey

Address 6 Cushing St, Paw.

No 6 Cushing St.,
Providence, Mr 9. 91

My Dear Watson,

I think I can safely affirm that between Mr Bennett and myself the plants will be named.

Send them on; we will be only too happy to help you to the best of our ability.

But how about Mr Herry? Will he think our authentication carries the weight of Cambridge infallibility? Please tell him yourself that they are sent to us. The 22^d met - found me sitting under the shade of my 46th milestone (more ample - I mean the shade - than the umbrage of a Northern telegraph pole). Yes! I am mediseval - and now look -

W. W. H. A. 1891

How natural seems your
old quill! The sound of
It has ere now nearly
driven me to huri-kari.

Oh, for a renaissance, Dear
me! my precious toy, my
gold-headed - will be right
next month, and the second-
-fun is over fire.

Is Goosbe trying to
stick on the antiportal side
of the toll? And how are
you your ain-sel? I am
myself "indifferent honest," but
I am not what I once was.

We are getting up a bot-
anic museum here. Any
seeds, fruits, dungs, fibres,
cones, wood-sections, send on,
we will love you thereof.

My wife and dearest
Lavinia are well.

Your friend ever
W. Whitman Bailey

March 5 1895

Dear Mrs Gray,

I have none of my father's scientific correspondence, but many of his own letters returned by friends. By the way, these are very charming - and worthy to see the light.

Now and then I find an autograph or some pamphlet, or book sent my father, I will bear you in mind. Thus I have N. B. Ward, and I think Quabett,

At our college herbarium we have all Olney's correspondence and if you will let me know your wants, it is possible that something might be found. I will get our excellent Curator, Mr Collins, to look. The correspondence is voluminous, but all systematized, we can tell at once if we have any desired correspondents. I shall certainly take an early opportunity to see you

Collection, I have written to Prof
Beal to secure a likeness of my
father for you, I shall be happy
to know you possess it.

I have two such lovely
children! I must indeed show
them to you, My boy will be 12
next month, and the Lottie, is
over 9, They are the joy of my
heart. I think Dr Gray knew my
dear old friend - Mr Hunt, I
had not happened to see the death
of Mr Redfield - a great loss,

Cordially ever

W. W. Bailey -

BROWN UNIVERSITY
DEPARTMENT OF BOTANY.

PROF. W. WHITMAN BAILEY, A. M.,
WINTHROP J. V. OSTERHOUT, A. M.,
Instructors.
J. FRANKLIN COLLINS,
Curator of the Herbarium.

PROVIDENCE, R. I., Mar 8 1895

Dear Mrs. Gray,

I send herewith a list of Mr. Olney's correspondents. If among them you find any names you desire, please let us know, when, it is possible that something could be done. For instance, there may be from any desired person a number of letters where we could spare an unimportant one; or, perhaps, in any case, can exchange with you. For say, some one whom we have not, say, thing that I own personally, I would let you have anyway. In college things of course I have to make every thing straight.

My wife goes to N. Y. today to see her mother who is in a Hospital for surgical operation; which was successful - but leaves her in poor shape.

Truly Yours
W. W. Bailey

BROWN UNIVERSITY
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Instructors.
J. FRANKLIN COLLINS,
Curator of the Herbarium.

PROVIDENCE, R. I.,

189

*A List of Col S. T. Olney's
Correspondents.*

Henry Gilman	George Thurston
F. L. Scribner	H. L. Smith
E. A. Potter	T. H. Allen
Percey Watson	N. J. Anderson
E. Tuckermann	Geo Engelmann
Asa Gray	A. P. Garter
M. A. Curtis	H. G. Reichenbach
W. H. Brewer	Mrs Wm Roy
Baron von Mueller	Rev J. L. Russell
J. J. Hale	W. H. Luzzett
A. H. Smith	M. S. Beth
Lewis R. Gibbs	W. S. Pullisont
L. S. P. Watt	G. C. Sowell
John T. Holden	John Carey
H. Willey	Hugh M. Peabody
Daniel Clark	Alphonso Wood
G. W. Clinton	Chas Wright
J. W. Robbins - M.D.	Lammell H. Wiegler
J. Richard	George Vasey
x C. E. Bessey	H. W. Ravenel
Wm Cokes	Earl H. Flint
W. G. Farlow	Josiah Hale, M.D.
H. W. Young	Stephen Elliot
C. F. Austin	
Dr W. Sonder	

John A. Lowell
P. D. Kriesherm, m.l.,
Lewis J. Pratt
J. L. Holton
J. Nuttall
Chester Dewey
Chas E. Smith
+ Bruce Brown
England,
J. P. James
J. H. Mellichamp
G. W. Chapman
H. C. Beardslee
x Wm. Booth
C. C. Parry
Edwin Hunt
Roth Halsted
Elihu Hall
Rev Mark Hopkins
E. C. Home
Thos. M. Peters
L. Desperieux
A. R. Young
Mrs M. A. Curtis
? Chas H. Peck
J. C. Poyer
Samuel N. Charles
H. B. Lord
J. Macdon
H. Mann
J. H. H. Minn

Mrs. Mitchell
To. Watt
A. F. Kempf
J. T. Rothrock
D. C. Eaton
Rev J. Fowler
Arthur Schott
C. W. Short m.l.
H. H. Babcock
H. A. Bolander
E. Differbaugh
H. J. Bamstead
J. D. Hooper
D. Oliver
W. M. Canby
A. H. Curtis
C. F. Parker
H. A. Warner
John Torrey
Jacob W. Bailey
W. H. Hanes

Dear Mrs Gray

I send you a letter from Mr Booth, and I have a good many from Prof Bessey - all good, but cannot find 'em! One of those cases of secure hiding!

I find I have so many valuable autographs of my own acquisition in the way of correspondence - that I am beginning to put them in an album! Tell me how else I can serve you.

Truly yours

W. W. Bailey

Providence - Apr 19, 1895

BROWN UNIVERSITY
DEPARTMENT OF BOTANY.

PROF. W. WHITMAN BAILEY, A. M.,

WINTHROP J. V. OSTERHOUT, A. M.,
Instructors.

J. FRANKLIN COLLINS,
Curator of the Herbarium.

PROVIDENCE, R. I., *Mar 26* 1895

My Dear Mrs Gray,

I send you herewith the autograph of Prof Bessey, I can let you have almost any person's autograph (I mean in the totemic way!) of my own time and country.

Have you dear old Mr Hunt? (he must have written now and then to Dr Gray) - or James Fowler, or Haysworth - or Gerarda (I mean W. B.)?

I am suffering cruelly with my old enemy rheumatic gout - for my sins, But Spring is in the air and my snow-dresses and cucumbers in flower, and I have found open spots of *Symphoricarpos*, and I once know that Hope is at the bottom of Pantown's lot.

Truly yours are
W. W. Bailey.

BROWN UNIVERSITY
DEPARTMENT OF BOTANY.

PROF. W. WHITMAN BAILEY, A. M.,
WINTHROP J. V. OSTERHOUT, A. M.,
Instructors.
J. FRANKLIN COLLINS,
Curator of the Herbarium.

PROVIDENCE, R. I., July 24 1895

Dear Mrs Gray,

I inclose a letter from
Prof Bessey which I think
you desired. So far we have
been in luck, but expect to
go, Aug 1st to Conway, Mass.,
(not N. H.), Mrs Bailey and
the children are well. My
cousin - Mrs C. E. Bailey was
at a delightful reception at your
house. I hope you are on the
Cozy Bessey Shore - or some-
where as nice.

Yours friend ever
H. W. Bailey -

Dear Mrs Gray,

Mr Charles H. Smith
of this city desires to adorn
my new and elegant her-
barium room with portraits
of distinguished botanists. He
will defray all expenses.

Of course - first all, I de-
sire a good picture of Dr
Gray - of a pretty large size,
to head the list. Can you
direct me to some photog-
rapher who holds a negative?

My new quarters include
a fire-proof and very com-
modious herbarium room, fitted
with ample new cases; new
laboratories and lecture-rooms,
I have also a curator, and
two assistant teachers. My
salary, after nearly 19 years
service remains only \$1600.
Hard sledding at that!

My two children grow

apace, Whitman is now a-
fore my shoulder, He is nearly
chiteen - a handsome, manly
boy, Marsacet - now ten, is
solid gold - a joy and a
comfort, Bestiful Creatures
both, I am a constant and
acute sufferer from rheumatic
gout - which affects my
neck and back, I do not
know what it is to be free
of pain, but I keep a jolly
face and a cheerful heart,

I do hope you are well,

Most cordially ever

W. Whitman Bailey

No 6 Cushing St

Providence, Jan 17, 1896 -

No 6 Cushing St, Providence
January 20, 1896.

My Dear Mrs Gray,

I shall indeed be very
glad to receive the engraving
you mention, and thank you
in advance. A gentleman here
has offered to furnish with por-
traits to the extent of a hun-
dred dollars. He has given us a
list of Mr Darwin.

I wish I could aid you in
your autograph hunt. All my
father's scientific papers went to
the Boston Natural History Society.
It is only by accident that I
ever find one. I have very many
of his own letters.

I do indeed hope you may
yet see my children - and my
wife. Mr Walter Deane will
tell you much about them.

Very truly yours
W. W. Bailey

No 6 Cushing St. Providence -
Feb 2^d 1896.

My Dear Mrs Gray,

I certainly thought
I had answered - and thanked you
for the picture. I am sure I wrote a
letter but that with me is not al-
ways the same as posting it.

I like the portrait very much in-
deed, I have excellent photographs
of Dr Gray - and also a copy of the
medallion, All the likenesses are good.

I have been writing, at the request
of the Brown Magazine - a history of the
rise of Botany at Brown. I shall soon
be in my nineteenth year of service.

Again, many thanks for the picture,

Your friend - W W Bailey

BROWN UNIVERSITY
PROVIDENCE

May 29. 1902

My Dear Friend,
My correspondent,
Dr H. Christ
Rue St Jacques 5

Bâle, Suisse,
Whom I never met, is one of
the ablest and dearest on
my list, Do you know him?
It occurred to me that he
would be delighted to discuss
Bolychain with you - and so
I have enclosed his note, and
write him so, Do drop him a
line, If you don't already know
him, you will thank me for a
genial, whole-souled friend, He
is also very conservative,

I hope - that is all
that with my hamperings I can
do, to be present at the next
meeting, However, as I start
the Monday after, June 9th for

the Centennial at my old home,
Wat Point - and it is to be a
very active and diverse program,
I may feel like keeping what
strength I retain, for what, God knows
it is little enough -

I lectured today - twice,
on ferns - and thought of you.
Collins supplemented me on
thallophytes - etc, Our hearers
sat agape and aghast!

Much good luck - and
abundant health and happiness
to you - from yours ever cordially

W. W. Bailey

Asa Gray Esq

Dear Sir,

In answer to your
favor Oct. 17 I have taken note
to reclaim from Reeve the plate
to Capt. W. of Hooker's L.

I am sorry, that after repeated
requests, I have been unable to
procure you the missing number
of *Annales des Sciences Nat. (Botanique)*
On referring to our books we
find that the No. was most
certainly forwarded to you, but

will still use all our
exertions to procure the W. -
and remain

Yrs. most respectfully,
H. E. Bailliere
for H. B.

290 Broadway, New York.

I beg to inform you, that from this
date, my Son, CHARLES E. BAILLIERE is my
sole Agent and Representative.

MR. GEORGE BRIDGES, who has hitherto
held that Office, is no longer in my
employ, nor connected, in any way, with
my business.

Yours respectfully,

H. BAILLIERE,

Of London.

October 1, 1855.

New York, Jan'y 7/36.

Prof Cha Gray

Dear Sir

I beg to acknowledge receipt of \$2.00 for which I am obliged. —

I most respectfully assure you that no effort has been spared by our correspondents to procure the missing No of "Ann. des Sciences Naturelles" (Vol 2 No 5) and further endeavours shall be made to get it. You have no idea of the difficulty there is in getting back Nos of French Journals

We are extremely sorry that this unfortunate circumstance

has induced you to give your
orders elsewhere, but hope that
from time to time we may
still be favored with your
commissions.

Y^{rs} mo. respectfully,
H. Bailliere
J^{no} H. B

290 Broadway, New York.

I beg to inform you, that from this
date, my Son, CHARLES E. BAILLIERE is my
sole Agent and Representative.

MR. GEORGE BRIDGES, who has hitherto
held that Office, is no longer in my
employ, nor connected, in any way, with
my business.

Yours respectfully,

H. BAILLIERE,
Of London.

October 1, 1855.

Paris, May 3,

JARDIN BOTANIQUE DE LA FACULTÉ DE MÉDECINE DE PARIS.

DIRECTION.

12, Rue Cuvier.

Paris, le 2 Avril 1850

N^o

Cher Monsieur,

J'ai l'honneur de recommander à toute
votre bienveillance un jeune savant qui, pris
d'ardeur pour les études d'Ornithologie, part
pour votre admirable pays et se propose d'en
parcourir une grande partie, à la recherche de
les animaux de prédilection. C'est le frère de
M. Bureau, notre compatriote en Linnéens, dont
vous connaissez sans doute les travaux sur les
Oignoniacés, etc. Comme je vous sais aussi
aimable que savant, je me suis permis d'es-
pérer que les immenses richesses de votre
Institut, vos bibliothèques et vos collections
seraient sur votre puissante recommandation, ouvertes
à notre jeune compatriote, et j'ai bien

que vous ne lui refuserez pas votre bien-
veillant secours.

J'ai à vous renvoyer de nouveau des échan-
tillons d'Impetrum que vous m'avez
envoyés de Londres, par l'intermédiaire de
M. Brongniart. J'ai eu, à cette époque
l'honneur de vous écrire à New York pour
vous en remercier. Je crains que ma lettre ne
vous soit pas parvenue. Je vous demandais
en même temps des renseignements sur le
nom générique d'Asapra. Celui qui avait
été attribué au Schenocaulon ayant été dé-
jà, je pense le nom libre, et classé pour cela
je n'ai osé l'appliquer à une légumineuse
des plus intéressantes que vous ayez été le
premier à nous faire connaître, et dont vous
avez que j'ai traité dans l'un des fascicules
de l'Histoire des plantes dont M. Bureau

veut bien se charger pour vous.

Recevez, cher Monsieur, avec mes nouvelles
offres de service, l'assurance de mes senti-
ments très dévoués

H. Deillou

Vous entourent.

J'ai pu immédiatement remettre votre
requête, au sujet du Bulletin de la Société
botanique à M. W. de Schrenkeld, secrétaire
général de cette Société; il va vous expédier
les livraisons

Croyez-moi, cher Monsieur, votre bien dévoué

H. Baillon

1. Rue Cardinal-Lemoine

and. Rue 29,

Paris, 13 juin 1870

Cher Monsieur,

Je vous suis bien reconnaissant de l'accueil
favorable que vous avez fait au jeune
homme que je vous avais adressé. C'est le
père de M. L. Bureau, le monographe
des Boignoniacés, qui lui-même vous en
aura certainement la plus vive gratitude.

Je ne vois pas quel mal il y a à ce
que deux genres distincts soient tirés de votre
nom. Vous devriez en avoir un plus grand
nombre, si ces sortes de choses se propor-
tionnaient aux services rendus à la science. Entre
Grya et Asagraea il n'y a pas la moindre
confusion possible, et je m'inquiète peu des
prétendues lois que les réginistes de la nomenclature

S'arroger le droit de poser, attendre qu'ils sont
les premiers à les violer et à s'affranchir
des simples règles de la propriété scientifique. Vous
avez dit là depuis votre opinion ad l'elate de-
génére, et il est inutile d'y revenir. Ce que j'é-
craignais le plus, c'est que le nom d'Asagraea,
supprimé dans les Mélanthacées, n'eût été
depuis lors appliqué à quelque type nouveau
américain. Je suis heureux qu'il n'en soit pas
ainsi. Peut-être avez-vous eu l'occasion de
rencontrer de près ce Dalea pinosa; c'est, il me
semble, une plante bien intéressante.

Je suis heureux d'apprendre qu'on pourra
avoir des fleurs de Gnottia. S'il y en a
assez pour que vous puissiez m'en communi-
quer une, cela me sera bien utile pour
réformer ce que j'ai pu imprimer de ce genre;
je doute fort que ce puisse être une Rosacée. Vous

avez eu la bonté de me promettre des fruits de
ce genre.

Pour le Sterostemon mexicanus Schauer, rap-
porté aussi aux Rosacées, je n'ai plus de
doute; c'est une Saxifragée, fort analogue aux
Gealbonia, etc; j'ai publié une note sur ce
sujet dans le Botanicon, vol. 9.

Que pensez-vous de l'Arctomecon Donn.? C'est
une plante nous manque totalement. Est-ce un
Papaver? Si vous pouvez m'en obtenir
un bouton ou une fleur, cela me serait bien
utile, car je commence à traiter des Papa-
veracées.

En général, je vous renouvelle ma
prière de bien vouloir, quand il sera
possible, me communiquer un fragment de
tout genre nouveau américain que trouveront,
ou vous, ou les botanistes américains qui

pour l'analyser un bouton du Simmondsia
californica Nutt. (pied femelle). Connaissez-vous
le S. parubosa Kellogg (in Proceed. Calif. Acad.
of nat. Sc. II, 217; Prodrum., XVI, 23)? Je serais
également curieux d'analyser cette plante pour savoir
si elle est bien de ce genre.

and June 27
Bordeaux, 8 Mai 1871.

Cher Monsieur Gray,

Comme je n'ai pu vous écrire qu'au moment
où commençait la guerre, je ne sais si ma
dernière lettre a dû parvenir jusqu'à vous. Je
vous y remerciais de l'envoi fait par vous
des fleurs du Ceanothus et de celui d'un échantillon
du Pargella, plante charmante, et en effet bien
voisine des Amorpha, etc. Il ne m'a pas été
donné de voir le Dr. Parry qui m'a seu-
lement envoyé votre lettre de Londres et qui n'a
pu sans doute, vu les circonstances, venir jusqu'à
Paris. J'ai étudié les fleurs du Ceanothus avec
soin et je ne crois pas que ce genre doive le moins
du monde rentrer dans les Rosacées. Mais j'ai
tâché dans une note que je publie qu'il appar-
tient à la famille des Elastracées où il repré-
sente un type un peu anormal. Les fruits ne
m'étaient pas connus. Mais dès que l'annistice

M. J. Gray
New York

fut signé au mois d'avril je pus aller jusqu'à
Kew pour consulter l'herbier, après de finir deux
monographies que j'ai commencées dès longtemps
(Chaillotianus pour la Flora Brésilienne et Phecto-
crénas pour le Prodromus). Là, j'ai vu des fruits
du Canotia qui sont, en effet, quelque peu anormaux
parmi les Celastraceae, mais qui le ressemblent éga-
lement parmi les Rosaceae. Voici donc deux genres
attribués sans raison à cette famille, dont la
place peut être trouvée : le Canotia est le Pterostemon
de Schauer que j'ai trouvé être une Saxifragaceae
non éloignée des Loxalonia. Si, comme vous me
l'avez offert, vous pouvez me donner le fruit
du Canotia, cela me sera fort utile pour la rédaction
de mon ouvrage. Il en sera de même de tout type
de genre nouveau que vous viendriez à établir ; je
serais heureux de les étudier sur échantillons authen-
tiques.

Je me suis vu forcé de quitter Kew où cependant
je travaillais librement et en tranquillité, pour
revenir à Paris faire mon cours. Mais à peine
étais-je arrivé que les troubles suscités par
l'infamie de la Commune et des agents bonapar-
tistes qui la composent en grande partie, me
firent d'abandonner tout travail et de partir.
Je pus arriver à Bordeaux où je restai sans
doute quelque temps et où je me suis mis quelque
peu au travail.

Recevez, cher Monsieur Gray, la nouvelle assurance
de mon dévouement affectueux

H. Baillon

Je vous fais le nouveau mes offres de service si
je pourrais vous être de quelque utilité, après mon
retour à Paris, pour quoi que ce soit qui se
trouve dans nos collections. Il me serait bien utile,
si vous en possédez en quantité suffisante, l'avoir

has been at New for three or
four weeks but has left now,
intending to take the British
Association at Liverpool
on his way home.

Yours very truly

J. S. Baker

P.S. Baker
25 Sidney Villas
Dorchester Aug 26 1870

My dear Dr Hay

I just drop a line
to thank you for your note in
Gardeners Chronicle on ²June
which I got when just on
the point of leaving town for
a months holiday. Dr Parry
had told me only a day
or two before how that Dr
Engelmann was working
at the genus, but in

Euphorbia have flowered so
sparingly this year that we
have thought it better not
to attempt to deal with
them in the present volume
of the Defunium & that will
give me plenty of time
to communicate with Dr
Engelmann about them,
but when we do include
them what we were intending
to do was to describe all
we knew, figuring what we
could as a beginning & then
the others from time to time
as we could get drawing.

Surely you lose more than
you gain by transferring
parviflora from Yucca to
Aloe! How about defining
& clarifying the genera under
the circumstances? I should
say a bad Yucca but a
worse Aloe, I should be
very glad of seeds both for
New & Mr. Linders if you
saved any.

This dreadful war is of
course putting a stop to
all our communication
with the Continent. Dr Parry

Herbarium

May 20 1891

Secar Dr Donson

I have received
safely the two ferns
gathered by Mr
Loomis in Ascension
island.

We have a specimen
of the *Asplenium*
from Herb. Bentham
which was given by
Don to Lindley in
1831. I suppose this
means George Don
the younger, who

cannot be a form
of *R. Ascensionis*.

Yours very truly
J. G. Baker

Made a voyage to
Sierra Leone & col-
lected. One speci-
men was lost into
the fragile cover. I
have now compared
the plant carefully
& think it must be
a new species be-
tween fragile & vagans.

The other specimen
I showed thinking
was a Starred re-
producible, but it

We are expecting
Dr & Mrs Britton &
Dr Rusby in about
a month to spend
some time working
here.

Charlotte, Vermont
July 13 - 1884

Prof. Asa Gray.

Dear Sir:

The little book, mentioned in one or two letters to you during the year past: "The Orchids of New England" will be issued from the press in a few days, and I have instructed my publishers, Messrs Wiley & Sons, of New York, to send a copy to you which I beg you to accept.

You will find that in addition to the extracts from your Manual which you kindly allowed me to make, that I have inserted portions of your articles on the cultivation of our native Orchids, from the Journal of Science and have copied in smaller size two of the illustrations in the Text Book of Botany. It was an oversight and not through unfair intention that I made these two copies without consulting you, and therefore, that I may repay

you, beg that you will call upon me for the use of any electrotypes of the original drawings in my book, if you can make use of them in any publication of your own, or that you will let me make some original drawings for you of flowers or plants. These I should be glad to give you, without compensation.

The book is, I fear, too popular and unsystematic, but I have found often corresponding with our New England botanists that few have studied the Orchid family, carefully and that printed matter relating to it is very scattered and hard to get at, so that my humble attempt to collect this material may be appreciated by amateurs, if despised by practical botanists. I feel, my dear sir, that the best part of the book is that borrowed from you, and hope I have quoted correctly and given you full credit.

Very truly yours,

Henry Baldwin

This letter found in
The Orchids of New England
by Henry Baldwin

Library of the Gray
Herbarium

J. B. P. Hour-

hoped that Dr. would be
editor in chief - but his new
duties will not allow of that.
But the New people will
ardently support the Journal
if it is started.

Faithfully Dr. the work of
Chief Editor would devolve upon
me in virtue of my position
here near the Clarendon Press
which we hope will take
up the Journal print & publish
it. I should say that details
on the latter points are not
arranged though there is

21.12.85

My dear Prof. Gray,

May I join in
the chorus of congratulation
which meets you on the
attainment of such a noble and
honoured name? Pray receive
the most cordial expression of
my respect & regards. The
recollection of meeting you
at New some few years ago
is always amongst my most
cherished reminiscences -

On a matter of some

import botanically I venture
ask your advice & opinion.
We are at present hatching
a scheme for the establishment
of a new Botanical Journal.
The present Journal of Botany
is hardly worthy of Botanical
Science amongst English
~~speaking~~ workers on this
side of the Atlantic & Kew & Kew
leaves are quite crowded out
of the Journal of Micro. Science.
~~be the case~~ Further the Linnean
Journal hardly at present

command the confidence it
ought to.

After much deliberation
we have thought that we
might establish a new Journal
for Botanical Science. One that
would not be devoted to one
branch of the Science but
that would embrace all. It
would have all the best
features of the old London Journal
with the new features required
of the work done nowadays in
the Laboratories. We need all

would be a very advantageous feature in the Journal & would give it a position wh. it would otherwise lack.

The proposal at present is to make the Journal a quarterly one to start with so that there would not be a very great pressure upon the coeditors.

Do you think such a scheme could be worked? If so can you suggest any good coeditor?

We are at present only feeling our way to the establishment

very good ground for believing that the Press would take up the Journal - but we shall not make any direct overtures until the staff & size & character of Journal are fairly determined.

As coadjutors - coeditors - there would probably be F. O. Bowen (Prof. in Uesow) & H. Marshall Ward (lect in Manchester) and probably someone from Cambridge

is possible if he will
join - if not some other
worker from there.

The journal would it is
proposed be about the size
of the Old Quant. Journ. Amer.
Science - i.e. before Sanborn
increased its size a few years
ago. It would have plate
illustrations of geographical
papers - it would also
contain a news section
& a part for critiques &
reviews as well as an index

& current literature -

Now the matter upon
which I desire to have your
opinion if you will send
me it to me in - Would it
be possible to get a co-editor
in America? One who would
cooperate with us & procure
for us some of the many good
things produced on our side
of the Atlantic & who would
help to keep us here informed
of what goes on with you.

I feel that such cooperation

of the Journal, but I do
 hope we may succeed. &
 so much wanted.

You leave of course for
 our excellent Journal to
 support & I can believe
 that there might be a
 reluctance to introducing
 a new Journal from this
 side amongst your own
 ones already flourishing.
 But I should hope that
 a combination of work

on both side of the Atlantic
in one journal with such
feature as an exposure to
present would not subblent
any good established journal
with you - & that amidst
the plenty of material
there must be to share
sufficient for the new
venture.

I trust you will excuse
my troubling you on this
matter - And if you will
be so good as to give your

candid opinion upon the
scheme & if you approve
your support - we shall be
very grateful indeed to you.
With kind regards trusting
you keep in good health
I am very sincerely yours
Isaac Bayley Balfour

will see the heaviest part of
teaching work over so that
we may expect to be able to
arrange everything for the end
of March. - Bowser will then
be back (he is now exploiting
in Ceylon) & this next fall
should see some result from
all our deliberations.

As for surmising Britten's
Journal must either cease
or be confined in scope to
bear British B.B. duty. It is
unpleasant & drive to the
wall our old Journal which

1
Leby 8th 1886.

My dear Prof. Fay.

For very kind
letter of 6th ult. I received
it gave me very great
pleasure. Accept most heart
thanks for it. I did not
at once waiting until
I could say something further
about the matter of our
proposed Journal. Now as the
outlook clears rapidly & see
how we may hope for a

successful launch I write
to you with some confidence.

And first I must say how
much we are indebted to you
for your favourable opinion
& for putting us in the way
of having Prof. Farrow as a
Coadjutor. I am about to write
to him on the matter as you
suggested & we shall indeed
welcome his cooperation
& support. Truly I am
delighted to say will actively
co-operate - the press here will

take up the Journal and
when we have secured
Prof. Farrow's consent and the
promise of his aid all that
remain & do is arrange
details & make a start. But
at present both you and
myself are tied with teaching
work which makes it difficult
for either to get away for purposes
of consultation & personal
conference on the details
of our project but this month

2

thought the specimens would
be quite as accessible & more
useful indeed if placed with
the other herbaria named in
series after Bentham and
Hooker. On looking over the
herbarium however I am
grievously disappointed to find
the majority of specimens have
no locality attached to them.
The name in Thwaites' writing
is on a loose ticket, in many
cases an additional ticket gives
Littorpi (either Henry or John)
correction of the name - but

has done goodman service
in the past but we all feel
in this country that it is
not possible to drive in
that coach as it is at
present deluged & there is
no other course than that we
propose left open to us.
With the Transatlantic without
doubt so kind & secured
for us & carrying the members
whom modest forbids me to
name I think the staff
of our venture is really

a strong one & the Journal
should have a merry if not
a long life; And I am thanking
you for your good wishes with
my art that I hope they will
be fulfilled.

The Sherardian Herbarium
I have in hand at present.
With the aid of a very energetic
fellow of Magdalen (Mr. Farney)
I am going over it. My purpose
originally was to incorporate
it with the Main Herbarium.

I find that keeping Dillenius',
Morrison's & Hitchcock's Herbaria
separate & in their primary
condition as much special
house room is occupied as
we can well spare & as
Sherard's Herb. which has
hitherto been kept separate,
had not the typical value
which the publication of books
founded upon its specimens
give to the Herbaria of the
authors above named I

I am glad to know such
 good account of your own
 health & trust you may
 long continue in the enjoyment
 of such good health & send
 with kind regards & again
 thanking you for your
 numerous encouragement
 & support I am

Yours always remaining
 Isaac Bayley Belfrage

in too many cases no further
 information as to the specimen
 is apparent. I am having all
 the plants & tickets fastened
 down to sheets which will be
 stamped so that no future
 confusion can arise but
 the absence of local indication
 makes me hesitate about
 incorporating. I need hardly
 say that any information
 the bluest herb. or any of
 our collections here can
 afford you is at your disposal.
 Since you were here we have

made considerable changes.

The Herbarium being now
housed in the building formerly
occupied as a residence by
the Professor of Botany. It is
therefore accessible which for
some years past it has not been.

Your friend Prof. Pastoric
is well & vigorous. His book
on Zoology (the first vol.) is
just out - a valuable text-
book condensing his powers
physical & mental -

Mr H. Adams I am sorry
to say is involved, but has
just started on a voyage to
Egypt - purposing to return
in two months time. Many
alterations in connection
with the construction &
development of a new
Medical School have
thrown much worry in his
path recently & he is now
ordered rest & relaxation
of his medical avocations.



January 6th 1891.

My dear Sir -

Your letter of the 26th - has been put into my
hands - in which for mention certain parts of the
publications of the Bot. Soc. of Edinburgh as being
wanting in the library of the Herbarium of Harvard
University ^{Library} & desire to have the missing parts —

I have today put up for transmission to you in a box
or two a packet containing — Vols. III part 2, IV, V and
VI & XVII. These are all of the missing parts which
it is in our power to supply - and you still want
therefore the parts 1 & 3, VI, VII, VIII and IX. These are quite
out of print. Some may be reprinted in time if so
for shall have copies. The volumes sent are presented to

The Harvard Herbarium - Very dear Sir, from
D. S. Watson
Harvard.

Learning

III. 1, 3,

~~IV. 1, 3,~~

~~V. 1, 3,~~

XVII. 1, 3,

90

Royal Marine Garden
Eom. 12 Dec. 1860

My Dear Sir

Understanding from my
friend Dr. Mr. Anderson (now in his
way to Calcutta) that you received
a peculiar No. 7 paper from
Europe in Katarina I am
induced to write you the
services you promise to me for
on the west Katarina. I
hear that it is now Manila
rope. Can I have a few
reams transmitted to the
Garden here? Our Katarina
rope is 17 inches long & 10 $\frac{1}{2}$
broad. The Europe will
have to consist with this

I shall feel obliged to you
putting me on the way of
getting more of the paper
material.

I have sent for Mr. Huberman
a lot of Wright's Cuban
Fossils. Can you procure
them for the Mineral collection?

I shall request the money
in the way you direct, when
I throw the amount.

I am glad to see that
you give a prolonged
adherence to Darwin's views.

Intensely & valuable as
the views are, I think that
their tendency is very dangerous..
What do you say to Man? That
seems to be the great difficulty
Inasmuch he was created not
developed.

Darwin is undoubtedly an
undisputed book & contains
most important facts, which
are admirably generalized.
There can be no doubt that its
appearance will lead to important
results & both will be
eliminated. I am

Yours sincerely
J. W. D. W. D.

The Eye as you took say is
a decided Humbling-Work.

I believe that I was ~~from~~
complete as regards its position.
The idea of the ~~Albany~~ meeting
an experiment as to the
eye & getting lessons from the
animals he made, as to the
proper position of its position
& its adaptations, is ~~that~~
adherent to all my ideas
of the divine purposes.

I am trying to get our
paper-makers here to imitate
the paper you use for envelopes.
I hope that we shall succeed
although perhaps it will not be
so cheap as with you.

Yours truly
J. M. Ballou

J. M. Ballou, Inverness, N. H.
2nd. April 1861

My Dear Mr. Gray

Many thanks for the trouble
you have taken as to the Auburn plants.
They reached me safely & I paid the
money (\$24.46) to Harvey on your
account. I shall be glad to get
friends from your collection.
I have & thank you also for a copy
of ~~Estimate of~~ Frederick Mearns.
Your article on Darwin is certainly
the best I have read on his side,
although I cannot call you an
out & out supporter of our friend.
You very properly say that you do
not advise any one to accept Darwin
or any other denotation theory as true,
but the time has not come for that
& perhaps never will!

you are probably content in saying
that to a certain extent the
views are not opposed to ~~the~~
~~the~~ Natural Theology. I think however
if you carry out Darwinian
hypotheses to its limits you
will find many difficulties.
I still believe that man was
created & not developed from
Chimpanzees. The denial of the
possibility of the creation of species
& the necessary consequence of
accepting the theory of the evolution
of the responsible creature man
from the irresponsible ancestor seems
the irreconcilable with Noble
Beliefs.

Although we may allow much that
is said as to Natural Selection
(Who selects?) & Struggle for Life
still I do not see that we have
proof of the ~~the~~ excellence of
~~species~~ variation into new
species, ~~or of the progress of the~~
~~the~~ ~~the~~ I still believe
in imitation as to variation
in each species. The logical
argument fails completely.
of Darwin's views
~~the~~ ~~fact~~ in regard to instinct
are very much untenable.
I do not believe in the improving
of instinct & the effects of the
animals, - for imitation does
in making them better.

I also look upon him as a
true Christian man.

We have difficulty now-a-days
in getting men to devote them-
selves to that Science. Our
modern students have too
too much to study in a
superficial way, & there are
not many paths to Science
open to them. Our Country
does not do what it ought
for the encouragement of
Science.

I shall always be glad to
help you in any way

W. M. Brewster

was was Fellowship in Biology -
and Chemistry

A. M. Brewster
Edin. 31 March 1870

Dear Dr. Gray

I was glad to hear
from you. It is much long
time since we had the pleasure
of meeting, & I had hoped to
have seen you before your
return to America.

I shall be glad if I can help
in the matter concerning which
you write.

D. W. Rawley, which has
long been a fellow student of
Robert Lee. He is a good

Maximilian Schlegel.
He has had a good deal
of practical experience in
the examination of plants in
the herbarium of the University.
He studied for a while at
Berlin. Living as he did
in the garden he had excellent
opportunities of seeing plants.
He assisted me for 2
years in my Histological
class.

I think that he would suit
you as an assistant.

At present he is engaged

teaching Botany at Cien-
cestra Agricultural College
as I believe he is
a first-rate man. I have
known him in Edinburgh & I was
the means of getting him
the opportunity to visit
Dennett. I am inclined
not to depend upon him as
present prob. His great
object of study as you know
is Fruit plants & he
is a most pleasant man
in every way. He has
both the manner & the heart
of a man of science.

27 Jun 1881



Inverleith House
Edinburgh

My dear Father & Mother
I see in the newspapers
that you are coming to
London. I am heart
happy to hear that
you will be in the
city & visit the
house you & I built
many years ago

Hope it all done
till the end of July.

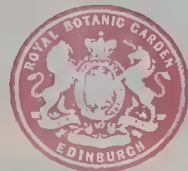
I mean to go to the
State of Arica with
my family in August.

Let me know if
I may expect you
here + stay
you kindest
J. M. Wells

Let. 12th June

Perhaps Mr. Wells & his
wife might come with
you

Inverleith House
Edin 30 Aug
1881



My dear friend
Thank you for your
kind note

My family are in the
in the Island of Arran
during the month of
August & September.
While my husband
has to be under
2 long repairs.

I fear that the work
interferes with my
receiving visitors...

Perhaps I may
someday visit London
again which is well
worth my time and the

I hope that I may
be able to visit
you some day
very truly
yours
J. B. Sullivan

24 March 1890
Dear Night and
day meeting

I shall be
glad to see
you & your
wife

after my return to
London if I shall
not be gone

Yours
J. B. Sullivan

La Pierrière near Geneva, Switzerland.
March 18th 1874

Ara Gray Esq.
Botanic Garden of Cambridge. Mass.

Dear Sir,

Through the kindness of my father in law, M^r Edmond Boissier, I take the liberty of asking to you the kindness of forwarding, with recommendation, the enclosed letter to M^r Bolander San Francisco.

I am studying at present an essay of monography of the genus Epilobium and am ready to go to the expense of having the American species figured which have not been drawn to the present day. I would be very much indebted to you for good specimens or seeds of Epilobium obcordatum, luteum, suffruticosum, opacum, glandulosum, minutum, tenellum, oliganthum, etc, etc so as to be able to give as good descriptions as possible.

If my request is indiscreet please omit it and believe me,
yours very respectfully

William Barbey

If my work succeeds it will give me pleasure to publish in english a special little pamphlet on american epilobium, if you think it would be of benefit to any one in the States.

Garbary

La Pierrière near Geneva Dec. 23^d 1874.

My dear Sir,

I have to thank you for your very kind letter of May 25th and your kind offer of American Epilobium. —

My manuscript is advancing ad, if God permits, I will go in the spring to Paris and London to consult the documents I cannot have sent here. —

If you would be kind enough to send me at once the specimens you have, I will take advantage of my stay in Paris to have ^{drawn} the American species (E. luteum, obcordatum, etc. —) which have not yet been figured. —

If you will please be kind enough to

and the packages to my address care of Mrs
A. Iselin & Co (my uncle) Wall St. New
York, they are very careful people and will
forward ~~them~~^{it} to me here. - I will not delay
the packages long here and will return it by
first opportunity. -

M^{re} Boissier begs to be kindly remembered
to you and M^{rs} Gray. She is busy printing
the 3^d vol. of Flora Orientalis which contains
the end of Calyciflorae and part of Corolliflorae. -
You will be glad to hear that M^r de Candolle
has found an editor in Paris ready to pursue the
work of the Prodromus for the Monocotyledonae.

yours very respectfully

your note was duly delivered to
Dr. Willdenow.

W. Darbey Boissier

La Pierrière near Geneva
Feb'y 26th 1875

My dear Sir,

I have to thank you
for your two kind letters of
Jan'y 18th & Feb'y 5th and
specially for your very liberal
consignment of N. Am. Gilobria
for which please accept my most
sincere thanks. — I will take
the best care of this most valu-
able collection and have issued it

America during the last weeks.

Of course I would consider it a great
favor if I could be of some service to
you and in the mean time try to do

your most respectfully

W. D. Barber

I will not keep any longer your office now
so liberally, but will take the liberty to detain
a few flowers for close microscopic

for \$200. - gold to the time
of its safe delivery in your
hands at Cambridge. - After
a first perusal I find things
most interesting and hope that
intelligence and activity will be
given to me to make the best
use of it. -

The various parcels for
M^{rs} Boissier & de Candolle
were safely delivered to them

yesterday. Good collection of Lemnae as I saw
are most interesting, the latter specially containing
many species which were most unknown to
M^r Boissier. -

I very much hope that these lines will
find the state of your health very much improved
and that you will not have suffered from the
intense cold which seems to have prevailed in

Valleyres. Vaud. Switzerland
July 8th 1875.

Dear Sir,

Thinking that you may
be anxious about the parcel of "*Epilobium*"
you were so kind to trust to me,
I take the liberty of enclosing
first proofs of *E. luteum* Pursh &
E. molle Torrey, which I have
been able to have figured, thanks
to your fine collection. -

The figures are not good and
not what I wished, but I had
them made by the best artist I

As soon I have finished with your parcel of "*Epilobium*" I
will return it to Cambridge. -

could find in Paris. - If nothing happens I will have figured:

E. suffruticosum Nuttall

E. obovatum Gray

" *minutum* Lindley.

" *paniculatum* Nuttall

" *coloratum* Muhlberg.

" *squamatum* Nuttall.

and a few new species, but for which I have but poor samples. -

I cannot make out what are *E. densum*, *leptophyllum*, *divaricatum*, *tenellum* Rafinesque. -

M^r Boissier begs to be remembered to you, he has just completed the

printing of *Flora Orientalis* ~~III~~ vol. to *Soyuzinae* which will appear in a separate fascicle with his ~~III~~ vol., in the course of the summer. -

I very much trust that these lines will find your health much improved by the fine season and that you can again enjoy to work on your favorite subject.

I have except my most sincere thanks for your very great kindness.

most respectfully yours

William Barbery

Valleyres. Vaud. Switzerland.
August 17th 1875.

Dear Sir,

Your very kind note of
July 23^d came duly to hand with
the samples of Guadalupe Island
Epilobium N° 31 which I do not
think is a new species, but a
form of *E. minutum* Lindley.
I have put it ~~with~~ in the Gray
Herbarium with other samples. -
Those barren islands of the Pacific
coast have, they say, a scanty
but very interesting vegetation. -

in your very kind note, any mention of your health, as
we took it as a sign of your being perfectly well.
Hoping that these lines will find you as well
I remain, dear Sir,

your most respectfully

Willia Parbery

Your ship was duly forwarded to St. William, who
has been appointed Director du Jardin Botanique de
Genève, position which was formerly held by our lamented
friend Rastou. -

M^r Boissier would like very much to have a share in the small collection which are to be distributed next fall. He begs to be kindly remembered to you and rejoices at the idea of having a list of names of the Kellogg Cal. plants. -

I have just received a sketch of *E. suffuticulosum* & *E. obcordatum* for my draughtsman in Paris. I have successfully cultivated here at Vallejo this summer your most pretty *E. obcordatum*.

It has well pleased and ^{is} hope that in a few days I will be able to forward to Davis a fruit to have it drawn, as it was not to be found in the dried specimens. - As soon I have the printed proofs I will forward you a specimen. The first part of ^{the} *Quintal* vol III has just come ^{sent} the other day for the printer; the III vol. will be out in a few days. -
We agreed with M^r Boissier at not finding,

Valleyres October 10th 1876.

Sir,

I cannot thank you enough
for your very kind attention in
sending sample of Epilobium juncum-
dum which came enclosed in your
note of Sept. 20th. As soon I
receive the full specimen which
you advise, I will have it
figured for my monograph.
Unfortunately my work has been
delayed by my health this
summer and I am obliged to

spend the winter at Mentone, Alpes
Maritimes away from my books.
In a sense I do not regret not
to publish too soon my observations
for the more I study the more
I see all I am ignorant of.

- I hope your trip in Ten-
nerness will ~~have~~ be of benefit
to your health and that you
will not suffer of the winter.

- M^r Boissier has spent a
month this summer in the Abruzzi
Italy, exploring the Vetuvos,

the San Jano d'Italia and Mojella. They
bought back some interesting species, some of which he
succeeds in cultivating in his garden of Vallejo.
Hoping that the ^{get} *Orontalis* will have
reached you at last safely, I remain Sir,

your most respectfully
W. P. Barber

Valleyres May 22th 1878.

Dear Sir,

A few days ago I have shipped to your address, in a box, the package of *Epilobia* of your Herbarium which you were so kind as to trust to me 3 years ago. I hope they will be delivered safely to you, and I beg to thank you sincerely for the great service and the very kind way you have rendered it to me. I have taken the liberty of adding a few remarks to several specimens which I were

~~Dear Sir,~~

With sincere thanks for your great kindness believe me, dear Sir,

Yours most respectfully

W. B. Barbey

without ~~these~~ determinations. Many
I have left without names and
probably are species undescribed, but
I was afraid to complicate the
future study of the genus by ma-
king new species on specimens incom-
plete. If they had all been so
well characterised as your fine *E.*
picandum, I would have had
no hesitation. -

You will be surprised to hear
that Professor Haussknecht, ^{of Würzburg} who
has travelled in the East for Mr
Boissier, has lately undertaken

a Monograph of the genus *Chilobrium*! So that in course
of time it will be thoroughly investigated.

For my own part I am at present studying the
geometries or organography's study of my work; it is hard
work for I have to learn everything but I find it very
interesting.

Mr Boissier is at present at Aix-la-Chapelle for
a slight pain in the knee, is health however has never been
better than this winter and he has been able to finish his
manuscript as far as the *Salicines* and is printing the
latter part of Vol. III. -

Vallejos June 25th 1878.

Dear Sir,

Your favor of 10th inst. has just come to hand and I am glad to hear that the *Epilobium* have reached you safely; enclosed please find \$4.75 for freight.

I have just written to secure a copy of your new *Flora*, which M^r Boissier has seen at M^r de Candolle's. -

M^r Boissier received a few months ago the invoice of M^r Watson,

of which I had a most interesting share, and for which please accept my sincere thanks. I will always be ready to subscribe to such additions of exsiccata of the American Flora.

We leave to-morrow, if God permits, for Holland and M^r Boissier with D^r Levier of Florence and M^r Leresche (two botanists) for Spain to explore the mountains of Asturias & Galice. If we could take our 4 children

a such expedition, we would accompany them with enthusiasm.

Hoping that you will have found the *Philotheca* a satisfactory edition, I thank you most sincerely for having trusted them to me so long.

Yours most respectfully

William Barbey

I had given orders to prepay the packages but our express could not do it, please excuse the trouble. —

sent by cond. will send in a month
WILLIAM BARBEY August 12th 1878

VALLEYRES

VAUD (Suisse)

Dear Sir,

Many thanks for your kind
note of July 8th.

M^r Boissier received all right
the copy you were kind enough to send
him of your *Flora*, (and I have
also secured some copy). - He
has just come back safely from
a 6 weeks exploration of Asturias,
Gallicia & Portugal. -

We will take each, with
pleasure, one collection of Fendler's
Trinidad Ferns. M^r Boissier
further wishes a set of Curtis's

It is safe to have
North American Plants (N^o 6) and
1 copy of the Bibliographical Index
of Lewis Watson (N^o 2) ^(I will take also 1 copy) which were
suggested by the print which you
were kind enough to send me.

I do not like to give you the
trouble of having the plants and books
forwarded, but at the same time
hesitate to refuse the offer you
are so kind to make.

M^r Boissier begs to say that he
is always disposed to take all exsiccata
published in the States

very respectfully

2 sets Fendler's	at \$7.50	\$15.-	W. Barber
1 " Curtis.		" 20.-	
2 copies Bibliograp. Index			
<u>bound</u> Watson		" 4.50	
		<u>\$39.50</u>	

Valleyres July 15th 1882.

Sir,

Please accept my sincere
thanks for your kind note of
June 29th and Contrib. of 26th which
are most welcome, as we find
these descriptions of excitation of
Parish which we have received
direct from them 2 months ago.

On the advice of M^r Boissier
I have bought the enclosed her-
barium of Curtis, so that I

begin to take an idea of,
American flora, but the air
of Florida is not so favorable
as California's to exsiccata. -

Many months ago Mr
Boissier asked for my ^{Vol II} of California
Botany but in vain, I
have the first volume. *

yours most respectfully

W. Barbey

If it was not indiscreet I

would receive the 2^d volume with pleasure as pay it
with next installment of plants. I would also like it
to a bookbinder, but would be afraid to contact
Mr. Boissier's address. - Please excuse the trouble.

WILLIAM BARBEY

VALLEYRES

VAUD (Suisse) Aug. 16th 1882

Dear Sir,

Please accept my sincere thanks
for your card of Aug. 1st.

For convenience sake both
for yourself and M^r Boissier's and
myself please in future send us di-
rect by ^{post or} Baldwin's Express the cata-
logs and books you are kind enough
to secure for us. If you are obliged
to prepay postage or freight you just

mention the amount on a postal card
and we will refund. By so doing
we will save the trouble to our
correspondents of establishing a freight
account with us. - If you have
my II Cal^a Bot. in hand please
mail it to my address. - Mr. Pringle
will receive Pringle's collection with
pleasure as he has seen mine: we
find him the best of all American
collectors, although we were very

much pleased with David's. - We advise very much
the activity with which you determine the discovery of
your pioneers which excites them in their research. The
idea of your American Alps seems to surpass in
richness that of our Swiss mountains as beside you
have at their foot that most interesting desert vegetation.

yours very gratefully
W. H. Harvey

WILLIAM BARBEY

VALLEYRES
VAUD (Swiss)

June 14th 1886

Dear Sir,

I will always act
as your forwarding agent,
with the greatest pleasure.
Be sure to direct the
care to Chavornay
Switzerland, our R.R. depot.
The herbarium of M^r Boissier

lichen herbarium as library as well as Duby's
colored original collection as publication. It was
a duty not to let these materials go out
of Switzerland. We try that the Boissier's
Herbarium do justice to its collectors

With very respectful compliments

Doctor Gray believe me, dear Sir,

Valleyres June 14th 1886.

Yours ever faithfully
W. Barbey

Cover - A. G. 25th Apr
H. B. 7th May 60th Apr

Dr C. - Linn
Cover - "
Barbey - "

is turned out of his 50
years apartment by the City
of Geneva, so that I am
obliged to have a building
made to receive it. Such is
the reason why I tell you
not to direct your Cosson,
DeCardoll etc. back to
Geneva.

I take this opportunity

of thanking you most sincerely for all
publications you are kind enough to send
to Driscoll's Press here, for which I
will be very much pleased if you can
secure, in subscription, any extradite or

publications of the United States.

Thanks to the kindness of Mr. Charles Aug.
DeCarroll he has offered me his whole lifetime

Valleyres Aug. 24th
1886.

My dear Sir,

On our return from
Nijni - Novgorod I
have found your card and
box for which please accept
my sincerest thanks.

I have just been made
the 3 distinct parrot
M. M. de Candolle, Cosson

and Bureau.

Always happy to help
you, I remain, dear

Lia,
yours respectfully

W. Barbey

Valleyres Oct. 3^d. 1888.

Dear Sir,

Many thanks for
your ready answer and
precious proceeding which is
most welcome to Boissier's
library.

yours very gratefully

W. Barley

Valleyres 13 Oct. 1890.

Dear Sir,

Many thanks for your
most precious Contributions.

In future could not the
reference of descriptive principles be
put on labels of exciseation?

What help to monographs!

Yours very gratefully

W. Barber

Norfolk, Conn.
2 August 1887.

Prof. Jervis Watson,

Dear Sir:-

I thank you very much
for sending me your "Contributions" for
1887.

The Hieracium of which I wrote is
H. aurantiacum. I have seen Lathyrus
maritimus again since I wrote, & the
one ~~found~~ found on our campus must be
that, tho' the stipules are smaller.
Seed may have been brought with stone
or brick for our new Gymnasium, -
this was found not very far from it.
I have seen Mimulus luteus in
two places here in Norfolk this
year. Found it first in 1881.

Solidago juncea, Ait., began to
blossom here about July 15, this year.
But the plant is thinner larger taller
& the ^{lower stem} leaves ^{much} larger (8 or 9 inches long) than the Syn. Flora
states, page 155. I do not think I can be
mistaken in the identification, - the ray flowers

are about 12, somewhat surpassing the
disk.

Potentilla tridentata grows
near here, — I found it in June, —
some 1400 feet above the sea. You
speak of it, I believe, as alpestre.

Yours truly,

J. H. Barlow.

490 Hammington Av.,
Hartford, Conn., 7 Nov. 1888.

My dear Prof. Watson: -

I see from the handwriting that it is to your kindness that I am indebted for a copy of the "List of the writings of Dr. Asa Gray" - "with the compliments of Mrs. Gray". May I ask you to accept and to convey my thanks. I am very glad to have the pamphlet, both on account of its scientific and on account of its bibliographical value.

If I can ever be of service to you. Please command me.

Yrs. truly,

John Humphrey Barbour.

Norfolk, Conn.,

29 Aug. 1889.

My dear Sir:- I send the *Spiranthes*
which I take to be *S. Romanzowiana*.
I have never seen an authentic
specimen, but I feel sure that
this is of the species from the time
of flowering (passing away Aug. 10,
whereas cerma is just beginning),
from the almost adherence of lower
sepals to the petals, from the lip
contracted above the middle,
and from the globular naked
callorithes. Please let me know
whether I am right.

Can you spare me some time
an authentic specimen of *Rosa*
humilis, Marsh. ^{was a fragment with leaf}. I am dreadfully
puzzled over that and *lucida*.

Yrs. truly,

J. H. Barbour

Norfolk, Conn.,
3 Sept. 1889

Dear Prof. Watson:

Thank you very much for the roses. They have helped to clear my mind. I think what has confused me most has been finding specimens with habit & spines of humilis but with sepals not seemingly lobed. Again the spines will seem to be of humilis on new shoots, but on older ones stouter and somewhat curved.

I find in a book here what I take to be Sparganium simplex, Huds., var. fluitans of Gray's Manual, credited them to "Ponds at base of white mts." I have never seen the var. angustifolium, so this may be it, but I think not.

Yrs. truly,

J. S. Barbour.

I congratulate you on the new "Manual." It seems to be everything such a work should be. I am glad to find the conspectus of the orders at the beginning, - I had always missed such a view of the philosophy of the arrangement in the older editions. I have noted two unimportant misprints wh. I take this opportunity of communicating.

p. 189, l. 14 ** should be ***

p. 304 last line "n. 7" must be an error.

I fail to find any explanation under Spiranthes of the cross that have sometimes puzzled me of S. cernua with flowers in one rank, and S. gracilis in three.

You will notice my change of address. I have charge of the N.T. Deposits and of the library in the Berkeley Divinity School here.

Very truly yours,
John Humphrey Barlow.

25-7
The Chancellor of the
Exchequer presents his
compliments to Professor
Gray and begs to
acquaint him that
the books to which
Mr Gray alludes in
his letter of yesterday
are not in the custody
of his office, but that
he has forwarded

his application to
the proper quarter. -

Downing Street

19 Sept - 1839

8. Bishopsgate Street Within
2^d. June 1856

Dr F. Booth,

24 Lower Street, Bedford Square,
Sir,

Mr. Murgis has handed to us your letter to him of this date, enclosing a credit for £32. on our agent Mr S. G. Ward of Boston, which we have credited to Dr. Asa Gray in compliance with your request, and we enclose an extract of his account showing a balance of £22.15.8 due by Dr Gray at this date. —

We are,

Sir,

Yours most obed^t Serv^t.

Danny B. Thierloz

D^r D^{rs} Usa Gray Boston, in account current with Paring Brothers & Co *6^r*

1854
Dec 31 To balance of former account
1856
June 2 To Interest per account
To Bill stamp

1856
74 4. May 19 By bill on G. Peabody & Co 20 May 24 13
5 4. 3 June 2 By credit on Boston favor D^r Booth ret^d 32 " 7
" " 3 By balance at debit of n/a 22 15 8

\$ 79 8 8

E. C.
London 2 June 1856

Paring Brothers & Co

Received of *Thos^d Booth Esq^r* the sum of
£ 22. 15. 8 say Twentytwo pounds 15/8
 for account of *D^{rs} Usa Gray* being balance of a/c

£ 22. 15. 8

London, 3 June 1856.
Paring Brothers & Co

Interest Account

De 5% Cr 4%

74 4. at deb't 31 Dec '54

to 20 May '56 in advance

24 13 - 2

49 11

, 3 June, '5

Clear 5 27

14 1 10

7 5 12 3

Columbia College,
NEW YORK

Barnard
President

President's Room. Sept. 8. 1874

Dr. Asa Gray

Dear Sir,

On my return
to the city after a month's
absence, I found your note
of the 24th. awaiting me.
I beg leave to thank you,
on the part of myself and
the trustees, for your gen-
erous gift of twenty-four
copies of Dr. Torrey's Pa-
cific Coast Botany to
the herbarium. I enclose
to you my check for
the amount paid by you

for binding, to wit: \$12.50
and think really, we
ought to pay the whole,
or a part, of the origi-
nal cost. We will do
so still if you will send
us a bill. In the mean
time I desire very cordi-
ally to acknowledge
your kindness in mak-
ing this effort on our
behalf.

Very truly yours,
F. P. Barnard,
Pres't Ch. Coll.

The
Botanical Gazette.

EDITORS:

JOHN M. COULTER,
WABASH COLLEGE, CRAWFORDSVILLE, IND.

CHARLES R. BARNES,
UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,
PURDUE UNIVERSITY, LAFAYETTE, IND.

May 21, 1888.

My dear Dr. Watson:-

Your p.c.
is at hand

We have the Scenes
Musc. from Lapham's li-
brary and want only the
supplement.

It may interest you to
know that I have had
a sufficient appropriation
not only to equip an ana-
tomical and physiological
laboratory fairly but also
to provide a good working
library, including complete
sets of some of the more im-

portant journals. I have
also been allowed to furnish
my own working table with
all the necessary literature
in the bryological line, in-
cluding of course the Bry-
ologia Europaea, so that
I feel quite "set up" -

Does Mrs. James still hold
the James herb. for sale? I
cast longing eyes in that di-
rection but I can't afford to
get it just now I fear. I hope
it will not be allowed to go
out of the country and I would
like to hear of any proposed
sale before it is consummated.

With warmest regards,
Sincerely yours,

C. R. Barnes

"I wish that I could make
you an offer that would transfer
you from London where I am
I do not know where the ferns
may make possible, but would
you entertain a proposition
of that sort?"

May 24/62

The
Botanical Gazette.

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CHARLES R. BARNES,
UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,
PURDUE UNIVERSITY, LAFAYETTE, IND.

June 6, 1888.

Dear Dr. Watson:-

I have delayed
answering your letter until I
could acknowledge the receipt
of the books, which were mis-
sent after they arrived in
Madison. They went first to
the geological department and
finally landed at the general
library where they were en-
tered as "presented by Dr.
Watson"! I was sorry to be
obliged to say that it was
undue credit! But I carried
the books off to their proper
place and today returned
the certified bill to the

See'y who will doubtless see
that it is promptly paid -

I am always open to
~~consider~~ any proposition
and should be very likely
to consider any one favor-
ably which gave me a com-
fortable living and opportu-
nity for original work above
my present position. I have
a very pleasant place here,
like the people very much
and was told by the Presi-
dent today that all the re-
ports he heard of my work
were very flattering. I have
\$2000 salary, with a pros-
pect of \$2200 shortly. I am
kept pretty busy with class
work and find the time
which I can devote to messes

rather limited - but I am
pegging away at them -

My present place is a
decided improvement upon
my former one - There is
still room for improve-
ment.

Sincerely yours,
C. R. Barnes

The
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UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

PURDUE UNIVERSITY, LAFAYETTE, IND.

June 11.1890.

My dear Dr. Watson:--

I have delayed answering your inquiries in regard to the Manual in order that I might consider the matter, and have been further delayed by press of other things.

I think I may say that I know the good qualities and the defects of the Manual thoroughly. I have scrutinized every description and every note in the book in the course of daily use for five years and particularly in the preparation of the keys which I sent you. The more I use it the more I am irritated by its defects. I use the word "irritated" because so many of its defects could have been avoided by the exercise of ordinary clerical care on the part of the authors. Of course I know what a struggle it was to get the book put out at all, and how often it seemed to be completely blocked; but the "extenuating circumstances do not change the unfortunate facts. I cannot take the time to enumerate all or a tenth part of these defects. They make themselves evident on the first use of the book in the contradictions between the generic and specific characters in many places. I have already had a good many letters from amateurs of mosses brought out by the first key that I published and by this last one. I have never heard a favorable opinion of the book expressed by any one who has used it. The other defects are more radical. Take an instance of one

only. It is almost a matter of common knowledge that Mr. Lesquereux finally ruined his eyesight by work on the Orthotricha. Yet in the treatment of this genus in the Manual he neglects to use the most important distinction (as to the character of the stomata--whether superficial or deep-seated-) that has been proposed. The use of this character dates from 1866 and it certainly ought to have gotten into the Manual in 1884. Further: the sequence of the genera is not in accord with present knowledge of relationship; and finally as I say in the preface to the "Keys"---"Of many species in the Manual neither the present names nor the autonomy can be maintained". (Please note that I am NOT of the neo-American school on the nomenclature question).

I have tried to express above legitimate criticism only and not carping such as your revision of the Gray's Manual has met in some quarters, and you will see from what I have said that I do not think it would be possible to better the Manual except in a completely new book. Or perhaps I ought to say, it is not possible to make the Manual what it ought to be except by making it over. Of course it could be bettered by some corrections on the plates, but the result would not be worth either the expense or the trouble.. You know that the typographical form is not good---it is distinctly Cassinesque, to coin a ~~new~~ word that we almost need. I should like to see the next Manual put up in more compact form, with revised nomenclature and descriptions, diagnostic characters in Italics, some species reduced, and the sequence altered. I should be sorry to have you advise the slight revision of this book that is possible on the plates.

Very sincerely yours, C. R. Barnes

HERBARIUM OF HARVARD UNIVERSITY,
BOTANIC GARDEN, CAMBRIDGE, MASS.

June 14th 1890

My Dear P. J. Barnes,

I thank you for
your frank criticism of
the Manual and I believe
that you are entirely right.

I could see in the process
of amplifying Lagarum's' Mss.
for the press that the book
was very faulty, so much
so that I would not allow my
name to appear on the title page,
as he urged me to do.

From my knowledge of the book
acquired in the course of my

it through the press, my opinion
of it has ^{been} more ^{very} bright.
Linguistics depended too much
upon Schimper & followed him
too servilely, and it was evident
that he had little capacity for
systematic arrangement or
any clear definition. He was
too broad of mind, and I have
no doubt an excellent psycho-
logist, but he was not fitted
to write a textbook. This, as
you say, has yet to be done,
but I hoped that in the mean-
time this ^{meagre} might be made in
some way a more serviceable
masterpiece.

I know no one more ca-
pable than yourself to do
what is needed and I hope
that the time will come

you will be able to give
yourself to it.

Yrs. very truly
Wm. D. Howells

The
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UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

PURDUE UNIVERSITY, LAFAYETTE, IND.

July 25. 1890.

My dear Dr. Watson:--

I have your letter of the 19th, and have delayed answering it for a few days in order that I might consider the proposition you make.

I must at the outset express my gratification at the enlargement of the resources of the Herbarium, and thank you for the very flattering opinion that you express as to my ability for the work proposed. I hope that the future will justify it.

You know of course that the scheme of work that you suggest is most attractive to me. It has long been my ideal to be able to devote my time to research, but I had not expected soon to ~~have~~ have an opportunity to do it. I do not dislike teaching but it is so time-consuming that I get comparatively little leisure for the original work that I want most to do. I give full weight therefore to this phase of the proposition. It is chiefly the question of salary that is difficult to settle, and I find that I need additional data.

I should like first to know about the permanency of the place. You say in your letter " . . . a sufficient income is secured for a number of years . . . " May I know what this arrangement is so far as it might affect the continuance of the income ?

As to the salary necessary I can only say what I want it to do---

not how many dollars it must amount to. I get here now a salary of \$2200 and am able by teaching 4 weeks in the Summer School to add \$200 to that. This enables me to live here in comfort and that is all I want to do in Cambridge. We have no luxurious habits and are content with "plain living" and the hope of attaining the "high thinking" which the proverb joins with it. We should need a house of 7--9 rooms (depending on size) with modern conveniences. This item of house rent is the largest single expenditure of the year, and if you can give me some information on this point I should be able with what I know already of Cambridge prices to form an estimate of the salary necessary to live.

Another thing: Would it be necessary in case my transfer can be arranged for me to come to Cambridge at once? I suppose I could be released from my engagement here, but I should prefer to retain direction of the work for the coming college year. I could probably arrange to spend the winter---say from Dec. 15 to April 15---at Cambridge and to devote a considerable portion of my time in the fall and spring terms to the rewriting of the text-book. The winter's work would enable me to make a good start at least toward the preparation of the body of the Sullivant herbarium for mounting. In case any such plan could be considered I would of course ask only part pay from the Herbarium and part from the University of Wisconsin, and details of the arrangement could be readily agreed upon.

Will you be present at the Indianapolis meeting of the A.A.A.S.?

Very truly, yours,

C. R. Barnes

The
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UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,
PURDUE UNIVERSITY, LAFAYETTE, IND.

P.S. I have only mentioned to Deane the fact that I had been invited to take up work in the herbarium in order that I might get information as to cost of living - I have also communicated the contents of your first letter to the President of the University and to my most intimate friends - Coulter. All these I have to consider the information as confidential - No others know anything of the matter.
B.

August 11. 1890

My dear Dr. Watson:--

Your letter of the 1st inst. came duly to hand and has had careful consideration. I had hoped that the resources of the herbarium were sufficient to afford you a salary of at least \$3000, for I think you have worked long enough for a pittance. If YOUR salary does not exceed \$2000 it would be out of the question for me to ask or expect more; yet I do not see how I can live on that sum in Cambridge. I thank you for your information on the subject of household expenses. Coupling that with what I know of the prices of provisions and with the data that my friend Deane gives me I have concluded that it is not practicable for me to get along in C. with less than \$2500. It is evident that the herbarium cannot afford to pay this. The question then arises as to whether you would care to pay for part of my time.

The President and the Regents of the University of Wisconsin express themselves as very unwilling to let me go away. Rather than let me break away entirely they say they will be willing to give me leave of absence for the third term. This would enable me to spend five and a half months at Cambridge and six and a half here. In addition to the time actually spent in Cambridge I should be able to devote my leisure during the first two terms to work in the lines you have named so that it would appear as the product of the money expended by the

herbarium. The University here will pay me pro rata. ~~Using~~ ^uUsing the present salary and the 38 weeks of teaching required as a basis, this will amount to about \$1500. I should think it fair for the herbarium to pay me at least \$1000 for the time actually spent at Cambridge and the product of my leisure while here.

It is manifest that this can only be a temporary arrangement, but it may serve well for a year or two. I am orthodox enough to believe that no man can serve two masters, but I hope that the interests of the two I propose to serve are not so antagonistic as to prevent them both getting fairly good service for a time. Perhaps within two or three years matters will shape themselves so that I can come to Cambridge permanently. It may be possible, in case the herbarium does not secure an increased income (a consummation devoutly to be wished), that some instructional work in the botanical laboratories may be provided, which, while interfering little with the investigative work, will yet bring sufficient income to enable me to live comfortably in Cambridge.

I think you can easily see that I want very much to accept the position you have tendered me, and that I am offering this compromise solely on account of my family. If it is accepted perhaps the time ~~xx~~ that I spend in C. will show me how I can get along there on \$2000. I think you may be sure that the financial difficulties are not due to cupidity.

I hope you will not fail to come to Indianapolis. I should like to discuss this matter further with you. If we can come to any agreement we could also discuss the revision of the text-book you spoke of.

Very sincerely yours, *C. C. Barnes*

The
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UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

PURDUE UNIVERSITY, LAFAYETTE, IND.

Oct. 4. 1890.

My dear Dr. Watson:--

I have just received the copy of your "Contributions---
XVII" for which please accept my thanks.

I have not, however, heard from you on the business that we discussed at Indianapolis and Crawfordsville. As the Corporation was to ~~met~~ meet on the 23rd ult. I think you must have written and the letter have failed to reach me. I have ^{had} no word from you since parting at C'ville. You intimated that you would acquaint President Eliot of the arrangement proposed and would let me know his opinion in regard to it. I would be glad to know definitely what has been done and what, if anything, is expected of me.

Very truly yours,

C. R. Barnes

The
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UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

PURDUE UNIVERSITY, LAFAYETTE, IND.

October 13.1890.

My dear Dr.Watson:--

Your first letter reached me a day after I had mailed my letter of inquiry to you, and in the same mail with it came the official notice of my appointment. A day or two ago I received your last letter and also one from President Eliot, stating the terms of my appointment and asking if they were acceptable, to which I replied in the affirmative.

I am ready now to begin the work on the Field & Garden Botany. I have written to Ivison asking for three copies of the book, two of which I shall want to cut up probably. I am trying now to solve the problem as to how to make the most judicious selection of cultivated plants to be included, and on this point at present I would like your advice. I suppose that the most helpful work will be the revised edition of Henderson's Handbook of Plants (1890). If you have a copy of this I would be glad if you would send it to me. If there is no copy at the Herbarium I suppose it will have to be purchased. In addition I have thought of sending a letter to all of the florists and gardeners who make a business of selling seeds, bulbs and plants (such as Henderson, Vick, Ferry et al.) asking them to indicate on a copy of their catalogues what plants are in most general cultivation as shown by their sales. I do not know how much of a response I should get, but

however meager the information would be useful. Let me know whether you think this worth while. In case such a circular as this is sent out, how is the expense for printing and postage (say 2 or 3 dollars) to be met? Shall I pay the bills and send a bill with vouchers to the Herbarium?

The only other plan that occurs to me is to make up first a list of cultivated plants to be included and then send this list to growers, seedsmen, florists and others, asking for criticisms, and the indication of omissions. Which plan would you think preferable?

I send you by this mail a circular of the *Hepaticae Britannicae*, which you have probably already received. Is the Herbarium getting this set? If not I think that it ought to begin, if there are any funds available for the purpose. An effort should also be made to obtain, if possible, the first centuries.

I enclose a letter received some time ago, as you will see from the date, from Mrs Britton. I have made no reply to it, and shall make none. While I am glad to be well out of the scrape, into which I got myself in a moment of impulse, I cannot but feel that the Brittons have in this matter treated me with a very great lack of frankness---which seems to be somewhat characteristic. At the meeting of the AAAS they were desirous apparently of entering into the discussion of all the minutiae of my plans as to the proposed Manual, with never a word that they had been planning a book for five years which would come into competition with the one I proposed. While they have been exceedingly kind to me in sending books and specimens, I must say that any such disingenuousness (to draw it mild) is very repellant.

Please return Mrs. B's letter.

Sincerely yours,

W. D. Barnes

90.
Oct 16,

The
Botanical Gazette.

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PURDUE UNIVERSITY, LAFAYETTE, IND.

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UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

PURDUE UNIVERSITY, LAFAYETTE, IND.

November 3.1890,

My dear Dr. Watson:--

I think that my last letter to you must have miscarried. I wrote nearly three weeks ago, asking you to send me a copy of Henderson's Handbook of Cultivated Plants, the revised edition (1890). I also suggested two plans of procedure for determining what species of cultivated plants it is best to admit, and asked your advice as to the more desirable. Would it be better to request the leading florists, nurserymen and seedsmen to indicate in their catalogues what species are most generally cultivated, or better to make out a list of those plants that I can ascertain as widely cultivated and send the list around for suggestions and corrections?

I am already making some progress with the work, omitting for the present the cultivated species. I have adopted the slip system by means of which I can insert at any time in proper place the cultivated species. As soon as I have completed the Ranunculaceae I shall send you a clean copy of the MS. for suggestions. Already I am confronted by numerous questions, which I am saving up to propound to you when I am ready to send on the sample. Questions as to method chiefly, they are. ---- I am anxious to get at the cultivated species as soon as possible, and I hope that this letter will reach you and receive your attention as soon as convenient.

Very sincerely yours,

C. R. Barnes

Nov 3, '90

The
Botanical Gazette.

EDITORS:

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WABASH COLLEGE, CRAWFORDSVILLE, IND.

CHARLES R. BARNES,

UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

PURDUE UNIVERSITY, LAFAYETTE, IND.

November 29.1890.

My dear Dr. Watson:--

I send you under separate cover the MSS. of the Ranunculaceae of F.F. & G. Botany. I have had the original draft done since Nov. 10, but I have had absolutely no time to copy it, having been away from home all of the first week and part of the second after finishing it. I was afraid that you could not read parts of the first draft, so that I felt obliged to put it into proper shape. I think however that you will want to know just what changes have been made without the trouble of comparing it point by point. I therefore enclose the slips so that this can be readily discovered. When any of the scratching is illegible the type-written copy will clear the matter up. As all of the last genera were comparatively clean I have only copied as far as *Coptis*. Please let me know whether the plan on which I have been working is acceptable or not.

I find myself in considerable doubt on the matter of including or excluding certain species of wild plants. Shall all of the Manual plants be included except those which are marked "rare"? For example: Ought I to include such species as *Ranunculus parviflorus* and *Purshii*? *Clematis reticulata* and *Catesbyana*? Ought I ^{not} to exclude such as *Clematis Baldwinii*? None of these appear, so you will see what I think about it.

While on this subject let me ask what is to be done with those orders which Dr.Gray considered too hard for beginners. Am I to continue the omission of the Umbelliferae, Gramineae and Cyperaceae ? And must the Asters and Solidagos be sent to limbo again ? If these plants cannot have the full descriptions inserted ---i.e.as full as of the others---would it not be well to insert them in key form at least ?

In going over the Ranuncs I noted on or two errata in the Manual memoranda of which I enclose.

I should esteem it a favor ^{to} ~~if I can~~ receive your opinion on the various points above as soon as possible, as I do not want to work on an erroneous plan longer than is necessary.

Very sincerely yours,

C. R. Barnes

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PURDUE UNIVERSITY, LAFAYETTE, IND.

Nov 29, 1890

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CHARLES R. BARNES,

UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

PURDUE UNIVERSITY, LAFAYETTE, IND.

December 5. 1890.

My dear Dr. Watson:--

Do not be alarmed when you see the enclosure in this letter. I am not going to ask you to revise every page of my MS, but I will trouble you to look over a little more. The package of letters as well as the three catalogues came duly to hand (and I suppose the copy of Henderson will be in on the mail that sees this go out, as I have your p.c. announcing its coming.) I have considered those letters and am of opinion that there are some suggestions that are worth carrying out, IF THEY DO NOT INVOLVE TOO GREAT A DEPARTURE FROM THE ORIGINAL PLAN OF THE BOOK. Some of them coincide closely with my own views as to desirable changes. In working out the Ranunculaceae, however, I took special pains to make as few changes as I ~~thought~~ ~~could~~ could. After pondering over the matter for some time I have made out the order Magnoliaceae after a somewhat different plan, and one that embodies most of the changes that I think desirable. Those changes are as you will see on examining the slips: 1. The making out of a key to ~~spec~~ ~~ex~~ genera to follow the description of the order, the choices of the key to have but one or at most but two characters. Wherever possible this key is to follow or rather to show the order in which the genera will be arranged. I expect that this cannot always be done, in which case the key would be more or less artificial. 2. Giving a fairly full description of the genus as in the Manual, i.e. under each generic head-

ing, instead of in the synopsis of genera. Of course the description will be more condensed than that of the Manual. 3. Using so large a number of analytic divisions that never more than two species will occur together. My experience with students is that it is very difficult for beginners to keep in mind or to select from more than two specific descriptions. This third change, you see, amounts practically almost to making a key to species.

It so happens in the case of the Magnoliaceae that the generic descriptions in the synopsis after the description of the order are very complete, so that I have had to do little more than transfer them to the other position that I propose.

When it comes to the printing I shall want to consider whether it is not desirable to indicate the cultivated, indigenous and introduced species by ~~different~~ ^{different} type; or at least the indigenous from the cultivated and introduced. But that is in the distance yet.

As soon as we get the plan of work fully settled I shall be able to make some progress. I hope that you will not take the work up to date as an indication of my personal rate. After my inertia is once overcome I shall travel I hope at a constantly accelerated velocity until I collide with the immovable F I N I S.

Very sincerely yours,

CR Barnes

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UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

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Dec 5 '50

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UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

PURDUE UNIVERSITY, LAFAYETTE, IND.

March 27. 1891.

My dear Dr. Watson:-

I expect to leave here on Tuesday March 31 for Cambridge. I shall stop at Battle Creek, Mich. where my wife has been for two months for treatment. As it is possible that she will have to undergo a surgical operation I may be detained there for a week. I cannot tell until I have had a consultation with the surgeon, but will write you from there in case I do not come on within a day or two. I am sorry for any delay and hope that it will not exceed a week at most.

Should any mail come to C. for me and be delivered at the Garden please hold it - Very truly yours, C. R. Barnes -

The
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CHARLES R. BARNES,

UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

PURDUE UNIVERSITY, LAFAYETTE, IND.

August 18.1891.

My dear Dr. Watson:--

I was sorry to have to leave Cambridge without seeing you again, but as I had made all my arrangements on the supposition that you were to return on Monday I had no alternative. As both Miss Clark and Mr. Fernald were on hands I thought that the business of the herbarium would be better attended to probably than when in my charge. Going without seeing you, I was obliged to use my own discretion as to what books could be taken. I think that I have nothing that you are likely to need. The list of those that I took is in Miss Clark's hands.

My boxes of papers, books, etc. which I sent by freight came last week and were unpacked; yesterday I resumed work, beginning upon the Leguminosae.

My wife is already considerably improved by reason of the change. She sleeps and eats much better than in her desolation at the Sanitarium. She stood the journey well---much better than I anticipated and I hope that she will steadily gain in strength.

Your "Contributions XVIII" came yesterday; for which, thanks.

Very cordially yours,

CR Barnes

August 18, 1891.

My dear Dr. Watson:--

I was sorry to have to leave Cambridge without seeing

you again, but as I had made all my arrangements on the supposition that you were to return on Monday I had no alternative. As both Clark and Mr. Fernald were on hand I thought that the business of the lecture would be better attended to properly than when in my absence. Getting without seeing you, I was obliged to use my own discretion as to what books could be taken. I think that I have nothing that you are likely to need. The list of those that I took is in this Clark's

hands.

My boxes of papers, books, etc. with which I sent off this case last week and were unpacked; yesterday I resumed work, returning upon the

terminus.

My wife is already considerably improved by reason of the change. She sleeps and eats much better than in her desolation at the terminus. She stood the journey well--much better than I anticipated and I hope that she will steadily gain in strength.

Your "Contributions XVII" came yesterday; for which, thanks.

Very cordially yours,

Aug 18, 1891

« THE »
Botanical Gazette.

EDITORS:

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UNIVERSITY OF INDIANA, BLOOMINGTON, IND.

CHARLES R. BARNES,

UNIVERSITY OF WISCONSIN, MADISON, WIS.

J. C. ARTHUR,

PURDUE UNIVERSITY, LAFAYETTE, IND.

712 Langdon St., Madison, Wis.

Sept. 17. 1891,

My dear Dr. Watson:-

Please send me a
copy of Lesquereux & James' Manual
with price of same -

College work has begun and for a week
or two I shall be swamped with students,
but shall soon be at the F. F. & G. again -

Yours faithfully, C. R. Barnes
Mrs. B. is much improved.

Planned

Sept 25 1911

My dear Mr. Brewster -

I have been very

glad to hear of your success in

your work of the season -

I hope you will find the material in the box of interest to you. I have been very busy with the work of the season and have not had time to write you more fully. I am sure you will find the material in the box of interest to you. I have been very busy with the work of the season and have not had time to write you more fully. I am sure you will find the material in the box of interest to you.

Sept 17 '11

◀ THE ▶
Botanical Gazette.

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712 Langdon St., Madison, Wis.

Sept. 22. 1891.

Dear Dr. Watson: - Please send me  
2 copies of Lesq. & James Man-  
ual in addn to the 1 I ordered  
some days ago - Hastily  
C. R. Barnes

Sept 22, '91

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PURDUE UNIVERSITY, LAFAYETTE, IND.

712 Langdon St., Madison, Wis.

September 28. 1891.

My dear Dr. Watson:--

All three of the copies of the Manual of Mosses turned up today in the same mail. The first copy was evidently delayed somewhere. I enclose check covering the price you name for them. I suppose that there will be no exchange charged on check, as I had a number of such small ones cashed at the Charles River Bank without cost. But if there is kindly let me know. I want you to get the amount net.

The article you send will appear in the October number if possible. I cannot tell till I get proof of what is already in the printer's hands.

The flurry of the opening of the University is over and I have settled down for the winter's work.

Cordially yours,

*C. R. Barnes*

15021162



Dec 26 1891

My Dear Prof. Barnes - (Private)

I am happy to say  
that by the liberality of friends of  
the Herbarium a sufficient income  
is secured for a number of years  
to justify me in increasing the  
working force here. Dr. N. L. Robinson  
is now with me, who is attending to the  
care of the Herbarium - what we call  
the "dredging" of it - seeing to the  
~~possessing~~ mounting & placing of  
specimens. The determination of  
the <sup>he is taking to this quite happily. Most of the</sup> plants sent in to ~~the~~ <sup>the</sup> ~~herbarium~~ will be  
therefore, can even be given  
~~to the "Flora". But~~ <sup>to the "Flora". But</sup> ~~their skills requires a great deal of~~ <sup>their skills requires a great deal of</sup> ~~work~~ <sup>work</sup> ~~that ought to be done.~~ <sup>that ought to be done.</sup>  
~~any means.~~ <sup>any means.</sup> The mosses ~~department~~ received  
no attention whatever, though our material  
(Sullivan, Taylor, James, <sup>& library</sup> ~~and~~) afford a basis  
that should make this the headquarters  
~~on that subject.~~ <sup>you know how much</sup> A new Manual for  
<sup>& this is the plan to prepare it.</sup> ~~herbarium~~ is needed. Then too the "Field, Forest  
& Garden Botany", which is <sup>one of</sup> the most valu-

Contributions and Harmony  
near in hand

Contributions, Vol. May 1873

" " 5  
" VI  
" VII  
" XV  
XVI

Extracted from Vol. X, Apr. 1875

Balance Contributions, Aug. 1876

" " " " Apr. 1878

And revision of Cedar Ziliaeae 1887

Copy others covering ground  
yet to be embraced in future  
Vol. of Synoptical Flora  
are greatly desired

R. D. Mevin

North Yakima, Wash.

Nov. 65

Notes

68

74

77

79

83

85

86

44

42

able juvenility of Dr. Gray's textbooks,  
and the poorest, needs a thorough revision,  
and the sooner it is done the better. Now  
there is no one that I know who is more  
competent to do all this satisfactorily  
than yourself nor any one to whom  
I would more confidently entrust it.  
I do not suppose that I can offer  
you now quite so much as you  
are receiving where you are, but  
you may be able to see counterbalancing  
advantages. You will be essentially  
your own master, <sup>and</sup> your work  
will be of a kind to interest you,  
unless I am mistaken, and  
you will have an excellent oppor-  
tunity to advance the science of  
<sup>in America</sup> botany. Will you consider this  
and let me know what salary will  
tempt you to come. If you cannot  
see your way clear to undertaking this  
work, where among all <sup>our</sup> ~~Americans~~





GEOLOGICAL & NATURAL HISTORY SURVEY,  
Alfred R. C. Selwyn, C.M.G., L.L.D., F.R.S., Director.  
MUSEUM AND OFFICE, SUSSEX ST. OTTAWA.

18\_

*It is requested that Books, Reports,  
&c., transmitted from this Office may be  
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Form of Receipt, duly signed and dated,  
in order that any mis-delivery may be  
brought to notice.*

*Contributions, in exchange, for the  
Library and Museum are respectfully  
solicited.*

to be sure that you know  
would you be willing to remain  
in your place.

It is desirable that arrange-  
ments should be perfected by  
1<sup>st</sup> October that they may receive  
the approval of the Corporation  
& the appointments be confirmed  
by them. Yrs. very truly  
S. W.

James Smith  
Henderson

Paris, 1<sup>er</sup> Septembre 1885.

Monsieur ,

Avant de partir pour les eaux, M. Cosson  
m'a chargé de remettre au Ministère, pour vous  
être expédié par ses soins, une caisse renfermant :

1<sup>o</sup> Pour vous-même { Illustrations (2<sup>e</sup> livraison)  
Mer intérieure au Congrès de Blois

2<sup>o</sup> Pour le Muséum de Cambridge { Plantes de Tunisie  
Plantes du Maroc.

3<sup>o</sup> Pour M. Asa Gray { Illustrations (2<sup>e</sup> livraison).  
Mer intérieure au Congrès de Blois.

4<sup>o</sup> Pour M. Vasey, botaniste du Département de l'Agriculture  
à Washington, district de Columbia ;

Illustrations (2<sup>e</sup> livraison) -  
Mer intérieure au Congrès de Blois.

Plantes de Tunisie recueillies en 1883.  
Plantes du Maroc recueillies en 1883-1884.



Chaque paquet, du reste, porte le nom de la personne à laquelle il est destiné et aucune confusion ne pourra être faite à ce sujet. M. Cosson vous sera très obligé de vouloir bien faire tenir à M. Vasey ce qu'il y a pour lui dans la caisse qui vous est adressée.

Veuillez, je vous prie, Monsieur me rappeler au bon souvenir de M. Asa Gray que j'ai eu l'honneur de voir à Paris et agréer l'expression de mes sentiments les plus distingués et tout dévoués.

G. Baratta

Paris, 7, rue La Boétie.

Paris, 14 Novembre 1890.

Monsieur le Conservateur,

Je viens de terminer la répartition en collections des doubles de M. Cosson et j'ai mis de côté à votre intention plusieurs petits fascicules. L'a Harvard Herbarium est d'ailleurs inscrit sur la liste des distributions de plantes et mon regrette maître lui a adressé en 1885 la série des espèces disponibles récoltées au Maroc en 1883 et 1884; en même temps il lui adressait aussi un petit paquet de plantes de Tunisie de notre mission botanique de 1883. Je ne fais donc que m'acquitter d'un devoir en mettant à votre disposition les plantes du Maroc qui font suite à celle que vous avez déjà reçues; les autres petites collections auront probablement de l'intérêt pour votre herbier et je suis heureux de pouvoir vous les proposer:

- 1<sup>re</sup> Maroc, espèces recueillies de 1885 à 1889 environ  
100 espèces. Dans ce même paquet il y a quelques espèces de Tunisie recueillies par

M. Cosson et par moi en 1888.

- 2<sup>e</sup>. Algerie, Tunisie et Maroc environ 100 espèces —  
Ces espèces ont été distribuées il y a déjà  
bien longtemps et il est possible que vous  
ne les ayez pas.
- 3<sup>e</sup>. Falsotacées extraits de l'herbier de Bunge dont  
M. Cosson a fait l'acquisition, env. 40 espèces.  
Dans cette petite collection il y a plusieurs  
espèces nouvelles de M. de Bunge.
- 4<sup>e</sup>. Doubles extraits de l'herb. général de M. de Bunge;  
env. 150 espèces.
- 5<sup>e</sup>. Schur, Transylvanie, env. 40 espèces.
- 6<sup>e</sup>. Origines diverses mais toutes européennes environ  
100 espèces. — Il y a dans cette collection  
des types de l'herb. Schultz Bip.

Si ces collections vous conviennent et ont de  
l'intérêt pour votre herbier veillez, je vous  
prie, me le faire savoir; je me ferais  
un plaisir de vous les offrir au nom de  
M. Ernest Durand, petit-fils de M. Cosson,  
qui va continuer les travaux de son  
grand-père.

Veillez, Monsieur le Conservateur,

agréer l'expression de mes sentiments très  
distingués et bien dévoués.

Le Conservateur

G. Baratte

7, rue La Boétie, Paris.

Le 4<sup>e</sup> fascicule des Illustrations Florae  
Atlanticae paraîtra vers la fin du présent mois.

100

100

50

150

40

100

530

the valleys are explored. It is a most deliciously scented thing perfuming all our pressing - paper - a clean, pure smell, like *Achlys triphylla* only more intense.

No. 2. is not perfectly described - grows on banks where the snow must have lain but a short time kind letter of so long ago. (May 4<sup>th</sup>) before, 23 also we cannot find. number 24 - the latter grows on the dry, hot, which I recovered slowly, and ridges of the mountain - where it had perfected and discharged seed, is my excuse. - That, and, in long before. But we also found it on Banks of Hood River and in the valleys. <sup>in flower</sup> 26. grows the same way, the earlier inflorescence being very diminutive. It is a plant of exquisite hue and scent. No. 50 in dazzling in its brightness common, also 33, 34, 54 and 55. The first (33) and last (55) in countless shades of purple and red. These were whole banks of Valerian, of

We brought a few  
White-Eyed Vireos  
Belted Gophers etc.  
if you care for them  
you can have them  
for your

Hood River  
Sep 23<sup>d</sup> / 82

Dr. Asa Gray  
Dear Sir

Of course I should not dare to make my appearance again without an olive-branch, - I thought to slight your very kind letter of so long ago. (May 4<sup>th</sup>) But a Palaebral fever, from which my eyes still suffer, had consequence, having nothing worth Dr. Gray's while to read. To be sure Dr. Barrett made a raid or two upon Mitchells Point getting seeds of *Arabis spicata* for Mr. Watson, but the two packages of *Douglasia laevigata* he brought home were <sup>nearly</sup> barren. He thinks the later flowering after the Columbia's rise, coming in hot weather, probably does



not perfect seed. - However and obtained Nos. 11, 16, 17, 23, 32  
that is, we shall try hard and 33 on these lower hills  
to gather some next spring, as and slopes. -- The rest were  
also of the *Pencedanensis* (*Erigenia*), which above snow line.  
was also past when your letter I did not realize until putting  
came. Probably it would be them up for the mail, now I  
impossible to find that after might have simplified a  
March. it is so early and Botanist's work by numbering  
short-lived - comes in February differently - This I did as they  
usually. dried and were laid away.

The package we send with There may be nothing new -  
this, beside the Arabis seed (70), indeed we think we have come  
contains plants obtained in a close to most, in our Books. But  
trip to Mt. Hood - five hundred feet the *Ericaceae* purple is. Nos. 5, 8, and  
above snow line. 9 are alike except in color and  
shape of corolla.

We stopped en route at Port-  
Spoke, a deep, triangular sheet. No. 6 we found on some of the  
of blue water, five miles in high ridges growing like a wall  
Circumference, at about thirty in snats, but by the snow streams  
to thirty three hundred ft. There it was from eight to twelve inches  
we found Nos. 1, 3, 18, 19, 21, 31, 58. high - inclined to be decumbent.

Leaving there, we descended No. 31. Was just below the snow  
perhaps a thousand feet; this - a thick hard to ride thro'  
without means of being accurate but it also grew in some of

the letter? I have been told that  
he did such things, and, loving  
flowers, I believe he would be  
conscientious in gathering.

— Which observation I am just  
conscious must sound strangely  
to eastern ears. — But children, under which Hood River runs  
large or small, cannot be relied at that point. — I walked on  
on here after. The youth of this  
part are too smart. And I have  
yet found no one of leisure whom  
I could trust.

At the last moment I  
have put a *Pencedanum* in the  
Package No. 71. The flower and  
leaf is of the later flowering,  
gathered by my <sup>little</sup> daughter after  
your letter, at the same time  
with seed. This from another  
plant. It blossoms in March,  
but in wet places continues  
sometimes into June.

Hoping my poor eyes will be an  
excuse for the appearance of this  
I remain Truly Mrs. D. C. Barrett

which are preserved no specimen  
for the root, scent and all, is like  
that of the Valley

No 4 grows on a ridge so high that  
a rock, thrown off was forty three  
seconds before reaching the snow  
the snow above the river looking  
for flowers on its banks for a  
mile or more but coming to a  
precipitous fall — at least in  
hearing of it — retraced our steps  
having found Nos. 15, 39, 43, 46, and  
51, besides a tiny *Pistioterus fragilis*  
in fruit, and a *Heuchera* which  
I could not reach and Dr. Hanks  
thought like what the Valley grows  
In reaching the Dodecatheon  
(43) very unlike ours in appearance  
I was obliged to climb a steep  
bank just where the snow had  
melted, leaving a yawning  
frisure a foot or eighteen <sup>in</sup> wide

slipping, I only saved myself by springing over the chasm just as I saw I must go. Of course each other at Witches Pt. after that experience I was sorry to find, on trying to look it up at home, that the varieties are so near together, and mine wanting seed.

No. 69. Grew on the topmost ridge wished to seed everything climbed - above tree growth, where we gathered - so that if effort Dr. Barrett said he looked the eyes find anything unusual everlasting <sup>white</sup> cone in the face. we may be on the look-out. We have attempted to do nothing for it ~~next~~ time.

with it, - for profane hands Please let us know how and carelessly lost the half-dozen where to send the Douglasia dried flowers gathered, having roots - I enclose in this the but one solitary blossom. Is it few seeds. a Douglasia too?

We looked carefully for D. of course if we could make laevigata hoping fortune would our trips pay by gathering put into our hand the seeds, seed - but if we cannot I we were unable to get earlier would like to speak <sup>or write</sup> to Mr. It undoubtedly grows there Howell about the proposition somewhere but we did not see you made. May I send him



During your stay for the  
 a small number of that in  
 a small quantity of flowers  
 from the off making, however

Mrs R. G. Bassett

Dear Mr. Gay

Gay brought down some which  
 are still I hope they are  
 in my hands, though  
 when I go again tomorrow perhaps  
 I can find the mother of the  
 & L. for possibly it did not  
 appear for some time in the old  
 world.

Mr. Henderson's letter says distinctly  
 "Hesperis". The previous ground for  
 money. By the plants appears after  
 the comes late June or early July  
 when it is laid from the old High  
 School - I shall like to see you  
 and at the same time. At the same  
 time as you that appear  
 of tried specimens I could have

I will  
 Today I visited Herschell as  
 desired. But the region was  
 too late for the thing one of spring.  
 Mr. Bassett and I have each  
 been on a day or two making  
 through the forest of the woods where  
 it is a little hard hoping to  
 discover some thing new, or  
 even one of the old blossoms.

I finally found it in a field  
 where it occupied a fork in a  
 large bush. It was a small  
 mass of green and gold, full of  
 small flowers. Since then, the  
 ground between it and mine  
 being low, I have gone there in



It was sorely scorched out <sup>places</sup> in the ch., as so many others were. A cold cloud brought over the



to say you find *Staphylinus* they are my pet in the world  
but I do not <sup>know</sup> what they are.  
simplicity of the work.

There are not many in the  
list of you - I could like  
to see the others.  
I would like to know  
whether specimens of *M.*

*trachatus* are satisfactory  
& it is very common but  
not much got. *M. latens*  
is so common everywhere  
I suppose it is to be  
included in your series for  
*Minima* *Homocera*, if you  
do desire it, in most of *M.*  
*trachatus*, I suppose will  
be very common to  
you.

I enclose with this  
few specimens I have in  
the series. Cannot assure that

I enclose with *Minima* *trachatus*  
(10) - the following, if I find it  
7. 8. 9 are plants for  
which looking for *Minima*

- 1 Have always seen *M.*  
*trachatus* but this is a
- 2 which is the "*trachatus*"  
I have looked for so long  
to find a *Minima* as last.
- 3 - the specimens of *M.*  
*trachatus* - major, I
- 4 I am ashamed to send  
another *Minima* but had  
the marked "*cordifolia*" and  
since, the real <sup>being</sup> *cordifolia*  
never send the *tr.*

Have identified one of my  
*Minima* *trachatus* as *M. trachatus* *tr.*

Hood River.  
May 16<sup>th</sup>

most wanted for glasses but have  
used a little bit of window pane -

But is it possible to get  
a stronger lens for extra small  
work to fit this instrument?

I have just examined their  
advertisement and want to ask  
what the (oddington magnifier and  
achromatic Triplet are, and  
if they are worth in Botany

Feeling that I am  
trespassing upon valuable  
time

I remain

Truly yours  
Mrs. P. G. Barrett

Sereno Watson.

My Dear Sir

I received  
the glasses and your kind  
note over a week since and  
am ashamed not to have  
acknowledged receipt sooner  
but had the promise of  
going to find what I believe to  
be a good one, at least, doubtful  
Oreodanum and waited  
to send it. A very bad  
case in the Dr's practice has  
prevented so far - it is likely  
we shall be from home over  
night, - meanwhile the possibility  
of finding is constantly lessening  
for one wants to know where to



look for seed to be able to find. a few *Decentia coccineas*, and two  
it. -- When my *Sisyrinchium* blossoms on the Douglas  
came on I found I had sent. We are intending to take the  
instead of a variegated, a mauve <sup>at least the mauve did not blossom</sup> ~~white~~ <sup>with</sup> colored center to send this  
fall. My wild flowers have done well like our *Bolea*, divisions  
themselves pleased this year of the latter being broader and  
*Phlox caespitosa* being full of bloom much more acute.  
and fragrance, while, at the same time, the *Scilla* were out.  
The *Rosartes*, *Achlys*, *Petia*, *Valeriana* small, *Physician's* microscope &  
*Discentia* (*formosa*.) and *Lera-ursa* wrote you of, is a stronger  
all blossoming, with my *Komangoffia* magnifier but of course we find  
ringing its bells among the ferns this much more serviceable.  
in an old stump. Earlier of course. At the time it came last week  
were the white *Sisyrinchium* with the mails were tardy, and were  
which the *Onoclea* usually come, probably subjected to unusual  
- They did not blossom this year. pressure wherever the accomma-  
nishes did the *Fibes longicauda* lions were. Your note came  
that comes earlier, this time. a fortnight after receipt of  
over *Tribulus* and purple Box. Dr. Garrett has repaired  
*Sisyrinchium* in plenty and it and, as you suppose, see how

Hood River  
July 13<sup>th</sup>

Botanists generally

Truly yours

Max P. L. Barrett

Herbert Watson

My dear Sir

Thanks for  
the names. The white  
rose is an old acquaintance  
but the only one of its kind  
here I believe. Is it possibly  
a white "pinocarpa"? - The hips  
were from a bush in our yard  
where it grows much more  
thrifty than in its original  
home. Am so sorry your  
letter came too late to secure  
blossoms, because I cannot  
see the peculiarity - "glabrous  
sepals" in the bud I have  
preserved. Would it not be as  
easily recognized in the fruit?  
and shall I send fruit?

Barrett

from both the home bush  
and the one from which I  
obtained my root?

The original plant is not  
thrifty - therefore I suspected  
it might turn red under  
different conditions. but this  
is its fourth year - third of  
blossom since removal, and ~~was~~  
a dead white

You did not give me the  
name of the *Lernaea* as Dr. Gray  
promised. - and perhaps I  
did not answer his question  
about color. It is purple, and  
is the <sup>very</sup> "*Pencedaunum*" I have  
sought so long and vainly. for  
it was given me when scarcely  
out of the ground with assurance  
that it grew like the *Pencedaunum*  
*farrinosum* or *Geyeri* which  
grows here, blossoming in Feb'y  
Even the bulb was brought - but

201  
the plant which I have found at  
last has a monstrous root, not-  
even bulb like. but thicker than a  
mans wrist. - called here Bear-  
weed, because nothing will touch it  
except Bears.

It blossoms close to the  
ground showing considerable  
purple as it lies on the hill  
side, unrolling as it pushes  
up, until, where it gets about  
a foot high, <sup>or less</sup> it is in perfect  
flower. - The stalks continue  
to to lengthen, as you will see  
by the seed stalk, - but I saw  
none in blossom more than  
from eight to ten inches high.

Accept my congratulations  
upon your return to health

We are thankful that  
Gautsman's fears spared you to  
science and Cambridge and

42 4361

#10.41

Hood River  
Dec 11<sup>th</sup>

Lucius Watson  
My dear Sir

Your kind  
letter of Oct. 30 leaves me  
no alternative but to  
encroach further upon  
your time. You give me  
no Dealer's name, therefore  
I must enclose the ten  
dollars to you - which,  
with Postage for microscope,  
please find.

We mailed last week  
some *Sigynanthium* roots  
to your address. The larger  
cluster is white. the smaller  
I think, variegated. - tho' the  
fall rains have obliterated

Mrs. Dr. Barrett



every snail from all my sticks - which came from trying a new method when the old did very well.

I can be sure of the seed that goes with this. Not white & variegated, - sure, unless mixed by mice, whose work I find in looking them over.

I thought the Arabis we found on Mt. Hood to be furcata, but I also thought it might be like the 'dwarf alpine form' mentioned in "Descriptions of New Species of Plants from our Western Territories" as found on Mt. Adams.

I was rather anxious to know, because we have always heard that the flora of Mts. Adams and Hood differed

greatly - which I doubt - judging from the specimens we have seen from both.

Next season we hope to go again, and to both, - though in a more economical way. Having only a week to spend this year Dr. Barrett paid a guide to take us over the best Floral Territory, in that time at the rate of four dollars a day, - which we could scarcely afford for a long trip.

If the *Sisyrinchium* box does not reach you safely please send us directions for their better preservation on the road.

And oblige yours truly  
Mrs. P. C. Barrett

G. Barroeta - M. D. San Luis Potosi - Mexico

Prof. Asa Gray.

Botanic Garden - Edge-

29. April 1878.

Dear Sir

I wish to remind you our  
meeting at your office in the  
Botanic Garden

I am happy in being  
able to send you by this  
mail two small sacs of  
seeds, the one is "Schinus  
molle, the other the Pinus  
Piñon - The Schinus is a  
tree whose common name

in this country is "Arbol  
del Peru - Peruvian tree -  
Native from Peru grows now-  
everywhere in México--.

Honoured with the visit  
of Dr. C. C. Parry, who gives  
me the sacs - and prays me  
to present you his respects,  
I will make to-day like a  
proof, if the seeds can  
reach your home by  
post.

I expect your

orders and I have the  
honour to remain your  
affectionate friend  
G. Barroeta.